

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: July 13, 2004, 16:03:45 ; Search time 50 seconds
(without alignments)

5215.273 Million cell updates/sec

Title: US-09-297-703c-29

Perfect score: 4545

Sequence: 1 MGYTISGIRFPACPLCKSQ.....AVVYALVEDEVNELEPVG 836

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1279676 seqs, 311918243 residues

Total number of hits satisfying chosen parameters: 1279676

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:*

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
- 7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
- 18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3501.5	77.0	870	12	US-10-424-599-273691
2	3387.5	74.5	882	14	US-10-254-534-2
3	3356	73.8	882	14	US-10-056-454A-15
4	3315	72.9	841	16	US-10-437-963-154157
5	3261.5	71.8	814	14	US-10-171-008-10
6	3176	69.9	825	16	US-10-437-963-114379
7	3170	69.7	855	9	US-09-792-127-4
8	3166.5	69.7	798	12	US-10-336-753-70
9	3166.5	69.7	870	12	US-10-336-753-54
10	3152.5	69.4	829	9	US-09-792-127-5
11	3148	69.3	695	9	US-09-792-127-2
12	2204	48.5	464	14	US-10-254-534-4
13	2124	46.7	776	12	US-10-336-753-56
14	2124	46.7	822	14	US-10-171-008-9
15	2119	46.6	827	16	US-10-437-963-170346

16	1953	43.0	674	12	US-10-425-114-53683	Sequence 53683, A
17	1939.5	42.7	421	12	US-10-425-114-45676	Sequence 45676, A
18	1885	41.5	681	15	US-10-369-493-5706	Sequence 5706, Ap
19	1863.5	41.0	874	15	US-10-369-493-3969	Sequence 3969, Ap
20	1765.5	38.8	704	15	US-10-369-493-1720	Sequence 1720, Ap
21	1664.5	36.6	546	14	US-10-171-008-8	Sequence 8, Appli
22	1634.5	36.0	647	15	US-10-369-493-10283	Sequence 10283, A
23	1376	30.3	309	14	US-10-171-008-4	Sequence 4, Appli
24	1034.5	22.8	502	16	US-10-437-963-138237	Sequence 138237,
25	822	18.1	337	12	US-10-262-511-108	Sequence 108, App
26	789	17.4	474	16	US-10-437-963-154156	Sequence 154156,
27	740.5	16.3	375	12	US-10-424-599-283934	Sequence 283934,
28	594	13.1	726	15	US-10-369-493-19590	Sequence 19590, A
29	587.5	12.9	756	15	US-10-369-493-20951	Sequence 20951, A
30	587	12.9	750	15	US-10-369-493-19848	Sequence 19848, A
31	587	12.9	770	15	US-10-369-493-2780	Sequence 2780, Ap
32	576	12.7	762	16	US-10-705-195-2	Sequence 2, Appli
33	571.5	12.6	630	15	US-10-369-493-50	Sequence 50, Appl
34	571.5	12.6	728	15	US-10-369-493-23588	Sequence 23588, A
35	571.5	12.6	785	12	US-10-336-753-36	Sequence 36, Appl
36	571	12.6	737	15	US-10-369-493-12299	Sequence 12299, A
37	566.5	12.5	720	15	US-10-369-493-20849	Sequence 20849, A
38	566.5	12.5	735	15	US-10-369-493-19307	Sequence 19307, A
39	566	12.5	617	15	US-10-369-493-9891	Sequence 9891, Ap
40	566	12.5	730	12	US-10-282-122A-58499	Sequence 58499, A
41	556	12.2	159	12	US-10-424-599-230110	Sequence 230110,
42	550.5	12.1	731	9	US-09-738-626-4854	Sequence 4854, Ap
43	550	12.1	705	15	US-10-369-493-632	Sequence 632, App
44	549.5	12.1	719	15	US-10-369-493-10019	Sequence 10019, A
45	544	12.0	628	15	US-10-369-493-9028	Sequence 9028, Ap

ALIGNMENTS

RESULT 1

US-10-424-599-273691
; Sequence 273691, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa Thomas J
; APPLICANT: Kovalic David K
; APPLICANT: Zhou Yihua
; APPLICANT: Cao Yongwei
; TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53223)B
; CURRENT APPLICATION NUMBER: US/10/424,599
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 273691
; LENGTH: 870
; TYPE: PRT
; ORGANISM: Glycine max
; FEATURE:
; NAME/KEY: unsure
; LOCATION: (1)..(870)
; OTHER INFORMATION: unsure at all Xaa locations
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_89164C.1.pep
US-10-424-599-273691

Query Match	77.0%;	Score	3501.5;	DB 12;	Length	870;			
Best Local Similarity	75.5%;	Pred. No.	0;						
Matches	649;	Conservative	73;	Mismatches	103;	Indels	35;	Gaps	6;
Qy	4	YTTISGIRFPACPLCKSQSTGFGHYRRTSSCLSFNFKAEFRRVFGSKSHESDSNNMVT	63						
Db	3	YTTISGIRFPVLP--SLHNSRFRGDRRTASLPVLRNNSFRKTKALKKSHSDSLSSAIA	60						
Qy	64	ASKRVLPGRIECYSSSTDLQLEAPGVTSSESQVLTVESLIMDD-----KIV	110						
Db	61	KSDKVLIPQDQNSASLTDLQLETPDITSDTQ---NLEDLTMEDEKYNISEAASSYRHI	117						

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111 ED-----EWN-----KESVPMRETVSIRKIGSKPSRIPPPGRGQRIYDIPSLTGP 156
112 EDGGGVSVSLVDVNIIPAKKASVSGVSKSIIVDEVPKPIPPPGTGQKQIYEDIPSLAH 177
157 RQHLDRYSQYKRLREEDIDYEGSLDAFSGYKFGFSRSETGITTYREWAPGATWALIG 216
178 RDHLDFRYGQYKRLCYEIDKHEGLDTFSRGEKFGFIRSATGITTYREWAPGAKSALIG 237
217 DFNWNPADVMQNECGVWEIFLPPNADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKF 276
238 DFNWNPADVMTRNEFVWEIFLPPNVVDGSPPIPHGSRVKIRMDTPSGIKDSIPAWIKF 297
277 SVQAPGELPYNGIYVDPEEEKVYFKNPQPKPSLRIYESHVGMSTEVINTYANFRD 336
298 SVQAPGIPYSGIYVDPEEEKVYFKNPQPKPSLRIYESHVGMSTEVINTYANFRD 357
337 DVLPRIKLGYNVQVMAIQEHSYASFGYHVTNFYAAASRRFGTDPDLKSLIDKAHELGL 396
358 DVLPRIKLGYNVQVMAIQEHSYASFGYHVTNFYAAASRRFGTDPDLKSLIDKAHELGL 417
397 LVLMADIHSHASTNTLDGLNMFDTGCHYFHSRGRHWWMDRLFNYSWEVLRFLSN 456
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457 ARWLDYKFGDFGDFGVTSMYTHHGLQVDFTCNYYNEFYGYATDVAVYVLMNDMIH 516
478 ARWLDYKFGDFGDFGVTSMYTHHGLQVDFTCNYYNEFYGYATDVAVYVLMNDMIH 537
517 GLFPEAVTIGEDVSGMPTVICPVEDGGVGFDFYRLHMAVADKWVEIIQKRDDEKMGDVIH 576
538 GLFPEAVTIGEDVSGMPTVICPVEDGGVGFDFYRLHMAVADKWVEIIQKRDDEKMGDVIH 597
577 MLTNRWLEKCVSAESHDAQALVGDXTIAFWLMDKMDYDMDALDRPSTPLIDRGVALHQM 636
598 TLTNRWLEKCVSAESHDAQALVGDXTIAFWLMDKMDYDMDALDRPSTPLIDRGVALHQM 657
637 IRLTMTGLGEGYLNFMNGRFGHPWDIFPRGDLHLPFGKFPVGNYSYDKCRRRFDLGN 696
658 IRLTMTGLGEGYLNFMNGRFGHPWDIFPRGDLHLPFGKFPVGNYSYDKCRRRFDLGN 717
697 SKHLRYHGMQEFQDAIQHLEAYGFMTEHQYISRRKDERDRIIVFERGNLVPFNPHWTS 756
718 ADYLRYRGMQEFQDAIQHLEAYGFMTEHQYISRRKDERDRIIVFERGNLVPFNPHWTS 777
757 SYSYRVCGLKPGYKIVLSDDDPLFGGPRGLSHDAEHFSGWYDNRPSFVYTPCRT 816
778 SYSYRVCSTPGYKIVLSDDDPLFGGPRGLSHDAEHFSGWYDNRPSFVYTPCRT 837
817 AVVYAL---VEDEVENELEP 833
838 AVVYALADDEPTLADEAP 857
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RESULT 2

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US-10-254-534-2
; Sequence 2, Application US/10254534
; Publication No. US20030046730A1
; GENERAL INFORMATION:
; APPLICANT: EK, BO
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/10/254-534
; CURRENT FILING DATE: 2002-09-26
; PRIOR APPLICATION NUMBER: US/09/087,277
; PRIOR FILING DATE: 1998-05-29
; PRIOR APPLICATION NUMBER: PCT/SE96/01558
; PRIOR FILING DATE: 1996-11-28
; PRIOR APPLICATION NUMBER: SE 9504272-7
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; PRIOR FILING DATE: 1995-11-29
; PRIOR APPLICATION NUMBER: SE 9601506-0
; PRIOR FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 2
; LENGTH: 878
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:beII gene (branching enzyme II) fr
; US-10-254-534-2
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Query Match 74.5%; Score 3387.5; DB 14; Length 878;
Best Local Similarity 71.9%; Pred. No. 9.1e-315;
Matches 621; Conservative 92; Mismatches 116; Indels 35; Gaps 5;

QY 4 YTISGIRFPFAP-LCKSQSTGTHGVRRTSSCLSNFNFKEAFSRVFSFGKSHSHSDSNVMV 62
DB 3 YTLGVRFPFVSVYKSNFGSSNGDRNANXSVFLKKHLSRLKILAEKSSYNSESPPSTV 62

QY 63 TASKRVL-PDGRIECVSSSTDDQLEAPGTYSSESOVLTDVESLIMDD---KIVEDV--- 114
DB 63 AASGKVLVPGTOSDSSSSSTDDQFEFTETSPENSPASTDVSSTMEHARQIKTENDDVPS 122

QY 115 ----NKESVPMRETVSIRKIGS-----KPSRIPPPGRGQRIYD 148
DB 123 SDLTGSVEELDPASSLQLEGCKLBESKTLNTSEETIDESDRIRERGIPPFGLGQKIYE 182

QY 149 IDPSLTGFRQHLDRYSQYKRLREEDIDYEGSLDAFSGYKFGFSRSETGITTYREWAPG 208
DB 183 IDPLLTNYRQHLDRYSQYKRLREEDIDYEGSLDAFSGYKFGFSRSETGITTYREWAPG 242

QY 209 ATWAAALIGDFNNWNPADVMQNECGVWEIFLPPNADGSPPIPHGSRVKIRMDTPSGNKD 268
DB 243 AOSAAALIGDFNNWNPADVMQNECGVWEIFLPPNADGSPPIPHGSRVKIRMDTPSGNKD 302

QY 269 SIPAWIKFVSQAPGELPYNGIYVDPEEEKVYFKNPQPKPSLRIYESHVGMSTSEPPVI 328
DB 303 SIPAWINYSIQLPDELPYNGIYVDPEEEKVYFKNPQPKPSLRIYESHVGMSTSEPPVI 362

QY 329 NTYANFRDDVLPRIKLGYNVQVMAIQEHSYASFGYHVTNFYAAASRRFGTDPDLKSLI 388
DB 363 NSYVNRDEVLPRIKLGYNVQVMAIQEHSYASFGYHVTNFYAAASRRFGTDPDLKSLI 422

QY 389 DKAHELGLVLMADIHSHASTNTLDGLNMFDTGCHYFHSRGRHWWMDRLFNYSWEV 448
DB 423 DKAHELGLVLMADIHSHASTNTLDGLNMFDTGCHYFHSRGRHWWMDRLFNYSWEV 482

QY 449 VLRFLLSNARWMLDEYKFGDFGVTSMYTHHGLQVDFTCNYYNEFYGYATDVAVYVYL 508
DB 483 VLRYLLSNARWMLDEYKFGDFGVTSMYTHHGLQVDFTCNYYNEFYGYATDVAVYVYL 542

QY 509 MLNDMIHGLFPEAVTIGEDVSGMPTVICPVEDGGVGFDFYRLHMAVADKWVEIIQKRD 568
DB 543 MLVNDLIHGLFPEAVTIGEDVSGMPTVICPVEDGGVGFDFYRLHMAVADKWVEIIQKRD 602

QY 569 WKMGDIHVMITNPRWLEKCVSAESHDAQALVGDXTIAFWLMDKMDYDMDALDRPSTPLID 628
DB 603 WRVGDIVHTLTNRWSEKCVSAESHDAQALVGDXTIAFWLMDKMDYDMDALDRPSTPLID 662

QY 629 RGVALHKMIRLITMGLGEGYLNFMNGRFGHPWDIFPRGDLHLPFGKFPVGNYSYDKC 688
DB 663 RGLAHKMLRLVMTGLGEGYLNFMNGRFGHPWDIFPRGDLHLPFGKFPVGNYSYDKC 722

QY 689 RRRFDLGNKHLRYHGMQEFQDAIQHLEAYGFMTEHQYISRRKDERDRIIVFERGNLVP 748
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QY 749 VFNFWHTSSYSYRVCGLKPGYKIVLSDDDPLFGGPRGLSHDAEHFSGWYDNRPSF 808
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; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 114379
; LENGTH: 825
; TYPE: PR1
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_18076C.1.pbp
US-10-437-963-114379

Query Match 69.9%; Score 3176; DB 16; Length 825;
Best Local Similarity 70.3%; Pred. No. 1.5e-294;
Matches 586; Conservative 86; Mismatches 117; Indels 44; Gaps 7;
Qy 9 IRFPACAPCKSQSGTGFHGYRRTSCLSFNFKEAFSRVFGSKSHESDSSNMVMTAS--- 65
Db 20 VRFPV-----PAGARSWRAAEELPT--SRSLLSGRFFPAGVAVGGGGRVAVRAAGAS 70
Qy 66 -KRVLDPGRIB--CYSSSTDLQLEAPGVSE-----ESVLTLDVESLIMDDKIVE 111
Db 71 GEVMIPEGESDGMFVSAGSDQLPALDDELSTEVGAETEVESGASDVEGV---KRVV 126
Qy 112 DEVNKESVPMRETVSIRKIGSKPRSIIPPGRGORIYDIDPSLTGPROHLDVRYSOYKRLR 171
Db 127 BELAAE-----OKPRVVPPTGGQKIFQDMSMLNGKXHLRYSLYRLRL 172
Qy 172 BEIDKYEGLDAFSGRYEKFGFSRSETGITTYREWAPGATWAAALIGDNNMNPADVMTON 231
Db 173 SDIDQYEGGLETFSGRYEKFGFNHSAEGVTYREWAPGAHSAALVGDFFNNMNPADRMKN 232
Qy 232 ECGWEIPLPNNADGSPPIPHGSRVKIRMDTPSGNKGSIIPAWIKFSVOAPGELPYNGIYY 291
Db 233 EFGWEIPLPNNADGSSPIPHGSRVKIRMDTPSGNKGSIIPAWIKFSVOAPGELPYNGIYY 292
Qy 292 DPPEEKVKFNKPK 351
Db 293 DPPEEKYIFKHPQPK 352
Qy 352 LMAIQEHSYYASFGYHVTNFYAASRFGTDDLSLIDKAHELGLLMDIVHSHASNT 411
Db 353 IMAIQEHAAYGSGYHVTNFYAPSRFGTDDLSLIDKAHELGLLMDIVHSHASNT 412
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Db 413 LDGLNGFDGTDTHYFHSGSRGHHWMDSRLLFNYSWEVLRLFNARWLDVYKFDGFRP 472
Qy 472 DGVTSMTYTHGLQVDFGTGNYEYFGYATDVAVVYLLMDLMDIHLGLPEAVTIGEDVSG 531
Db 473 DGVTSMTYTHGLQVDFGTGNYEYFGYATDVAVVYLLMDLMDIHLGLPEAVTIGEDVSG 532
Qy 532 MPTVCIPVEDGGVGFYRLHMAVADKWVEIIOKRDDEWKMGGDIIVHMLTNRRLWLEKCVSYA 591
Db 533 MPTFALPVQDGGVGFYRLHMAVADKWVEIIOKRDDEWKMGGDIIVHMLTNRRLWLEKCVSYA 592
Qy 592 ESHDQALVGDXTIAFWLMDKMDYDFMALDRPSTLIDRGVALHKMIRLITMGLGEGYLN 651
Db 593 ESHDQALVGDXTIAFWLMDKMDYDFMALDRPSTLIDRGVALHKMIRLITMGLGEGYLN 652
Qy 652 FMGNEFGHPWIDPRGDLHLHPSGKFPVGNYSYDKCRRRDLGNSKHLRHYGQEBDOA 711
Db 653 FMGNEFGHPWIDPRGDLHLHPSGKFPVGNYSYDKCRRRDLGNSKHLRHYGQEBDOA 712
Qy 712 IOHLEAAYGFTSBHOYSRKHEDRRIIVFERGNLVFVFNHFWHTSSYSDYRVGCLKPGKY 771
Db 713 MQSLEEKYGFMTSDHOYSRKHEDRRIIVFERGNLVFVFNHFWHTSSYSDYRVGCLKPGKY 772
Qy 772 KIVLDSDDLPGGGRSLHDAEHSFEGWYDNRRPRRPMVYTPCTAVVYALVE 824
Db 773 KIVLDSAGLFGGGRSLHDAEHSFEGWYDNRRPRRPMVYTPCTAVVYALVE 825

RESULT 7
US-09-792-127-4
; Sequence 4, Application US/09792127

; Patent No. US20020002713A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Beckles, Diane M.
; APPLICANT: Butler, Karla
; APPLICANT: Pearlstein, Rich
; TITLE OF INVENTION: Starch Branching Enzyme Iib
; FILE REFERENCE: BBI439 US NA
; CURRENT APPLICATION NUMBER: US/09/792,127
; PRIOR FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: 60/186098
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 4
; LENGTH: 855
; TYPE: PR1
; ORGANISM: Triticum aestivum
US-09-792-127-4

Query Match 69.7%; Score 3170; DB 9; Length 855;
Best Local Similarity 70.9%; Pred. No. 6.1e-294;
Matches 592; Conservative 81; Mismatches 130; Indels 32; Gaps 8;
Qy 7 SGTRFPACAPCKSQSGTGFHGYRRTSCLSF--NPKFAFSRRVFGSKSSHE-----SDSS 58
Db 30 AGLARPSAPRSGGAERRRGVGLQSPSLFGRNKGTRSPRAVGVGSGWRVWRAGPSG 89
Qy 59 NVMVTASKRVLPDGRITCYSSSTDLQLEAPGVSEESQVL---TDVESLMD---DKIVE 111
Db 90 EVMI-----PDGSGGTPPSID---GPVDFSDDLKVPFIDDETSQDGGEDSWS 137
Qy 112 DEVNK--ESVPMRETVSIRKIGS---KPRSIIPPGRGORIYDIDPSLTGFRQHLDYRYSQ 166
Db 138 SETNOVSEEDAEEDTSEMDKESSTREKLRLPLPPGNGQQIYEDPTLRDKYHLEYSL 197
Qy 167 YKRLREIDKYEGSLDAPSGRYEKFGFSRSETGITTYREWAPGATWAAALIGDNNMNPAD 226
Db 198 YRIRSDIDSHEGMDVFSRGYKFGFMRGAEGITTYREWAPGADSAALVGDFFNNWDPNAD 257
Qy 227 VMTQNECGWWEIPLPNNADGSPPIPHGSRVKIRMDTPSGNKGSIIPAWIKFSVOAPGELPY 286
Db 258 HMSNKDILGWWEIPLPNNADGSPPIPHGSRVKIRMDTPSGNKGSIIPAWIKFSVOAPGELPY 317
Qy 287 NGIYDPPPEBEKVKFNKPK 346
Db 318 NGIYDPPPEBEKVKFNKPK 377
Qy 347 YNAVQLMALIOEHSYYASFGYHVTNFYAASRFGTDDLSLIDKAHELGLLMDIVHSH 406
Db 378 YNAVQLMALIOEHSYYASFGYHVTNFYAASRFGTDDLSLIDKAHELGLLMDIVHSH 437
Qy 407 ASTNTLDGLNMGDTGCHYFHSGRGHHWMDSRLLFNYSWEVLRLFNARWLDVYKFDGFRP 466
Db 438 ASNNTLDGLNMGDTGCHYFHSGRGHHWMDSRLLFNYSWEVLRLFNARWLDVYKFDGFRP 497
Qy 467 DGRFDFGVTSMYTHGLQVDFGTGNYEYFGYATDVAVVYLLMDLMDIHLGLPEAVTIG 526
Db 498 DGRFDFGVTSMYTHGLQVDFGTGNYEYFGYATDVAVVYLLMDLMDIHLGLPEAVTIG 557
Qy 527 EDVSGMPTVCIPVEDGGVGFYRLHMAVADKWVEIIOKRDDEWKMGGDIIVHMLTNRRLWLEK 586
Db 558 EDVSGMPTFALPVQVGGVGFYRLHMAVADKWVEIIOKRDDEWKMGGDIIVHMLTNRRLWLEK 617
Qy 587 CVSYAESHDQALVGDXTIAFWLMDKMDYDFMALDRPSTLIDRGVALHKMIRLITMGLG 646
Db 618 CVTYAESHDQALVGDXTIAFWLMDKMDYDFMALDRPSTLIDRGVALHKMIRLITMGLG 677
Qy 647 EGYLNFMGNEFGHPWIDPRGDLHLHPSGKFPVGNYSYDKCRRRDLGNSKHLRHYGQ 706
Db 678 EGYLNFMGNEFGHPWIDPRGDLHLHPSGKFPVGNYSYDKCRRRDLGNSKHLRHYGQ 737
Qy 707 EPDQAIQHLEAAYGFTSBHOYSRKHEDRRIIVFERGNLVFVFNHFWHTSSYSDYRVGCL 766

Db 738 QFDQAMQHLKYEKGFMTSDHQYVSRKHEEDKVIIVFEKGLDVFVFNHFWSSSYFYRVGCL 797
Qy 767 KPGKYKVLDSDDPLFGGFGRLSHDAEHFSGEGWYDNRPRGFMVYTPCRTAVVA 821
Db 798 KPGKYKVLDSAGLFGGFGRIHHTAEHVTSDCQHDNRPHSFVYTPSRTCVVA 852
RESULT 8
US-10-336-753-70
; Sequence 70, Application US/10336753
; Publication No. US20030226176A1
; GENERAL INFORMATION:
; APPLICANT: Guan, Hanping
; APPLICANT: Keeling, Peter L.
; TITLE OF INVENTION: PLANT LIKE STARCHES AND THE METHOD OF MAKING THEM IN
; FILE REFERENCE: 2461-52
; CURRENT APPLICATION NUMBER: US/10/336,753
; PRIOR FILING DATE: 2003-01-06
; PRIOR APPLICATION NUMBER: US/09/402,254
; PRIOR FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/US98/06660
; PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-03
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/042,939
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-04-04
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 70
; LENGTH: 798
; TYPE: PRT
; ORGANISM: Zea mays
US-10-336-753-70
Query Match 69.7%; Score 3166.5; DB 12; Length 798;
Best Local Similarity 74.2%; Pred. No. 1.2e-293;
Matches 572; Conservative 80; Mismatches 80; Indels 39; Gaps 4;
Qy 64 ASKRVLPDG-----RIECYSSSTDQLEAGTVSEESQV---LTDVESLIMDDKIVEDE 113
Db 57 ARKAMVPEGNDGLASRADSAQFQSDLEVP-DISEETTCGAGVADAQAL----- 105
Qy 114 VKNESVPMRETVSIRKIGSPRIPPPGQRQRIYDIDPSLTGFRQHLDDYRSQYKRLREE 173
Db 106 -----NRVVPPPSDGGQKIQIDPMLQGYKHLEYRSLYRRIRSD 147
Qy 174 IDKVEGSLDAFSRGYKFGFRSETGITYREWAPGATWAALIGDFNNNPNADVMTQNEC 233
Db 148 IDEHEGGLFAFSRGYKFGFNASAEGITYREWAPGAFSAALVGDVNNWDPNADRMKNEF 207
Qy 234 GWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKDSSIPAWIKFSVQAPGELPYNGIYYDP 293
Db 208 GWEIFLPNNADGSPPIPHGSRVKIRMDTPSGIKDSSIPAWIKFSVQAPGEIPIYDGIYDP 267
Qy 294 PEEKYVFKNPQKPKSLRIYETHVGMSSSTEPINTYANFRDDVLPRIKKGYNVQJIM 353
Db 268 PEEKYVFRHAQPKPKSLRIYETHVGMSSPEPKINTYVNRDEVLPRIKKGYNVQJIM 327
Qy 354 AIQHSYVYASFGYHVTNFAASSRFGTPDDLKSLIDKAHELGLLVLMDIVHSHASTNTLD 413
Db 328 AIQHSYVYSGFYHVTNFASSRFGTPEDLKSLIDRAHELGLLVLMDIVHSHASNTLD 387
Qy 414 GLNMFDGTDGHHYFHSGRGHHMMWDSRLPNYGSWEVLRFLLSNARWMLDEYKDFGFRDG 473
Db 388 GLNGFDGTDTHYFHSGRGHHMMWDSRLPNYGNMEVLRFLLSNARWMLDEYKDFGFRDG 447
Qy 474 VTSMMYTHHGLQVDTGNYNEFYGATDVDAVYLMMLNDIMHGLFPBAVTIGEDVSGMP 533
Db 448 VTSMMYTHHGLQVDTGNYNEFYGATDVDAVYLMVNDLHGLYPAVTIGEDVSGMP 507
Qy 534 TVCIPVEDGGVGFYRLHMAVADKWEIIQKREDEWKGVDIVHMLTNRWLEKCVSYAES 593
Db 508 TFALPVHDGGVGFYRMEHMAVADKWIIDLKQSDETWKNMGDIVHTLTNRWLEKCVSYAES 567

Qy 594 HDQALVGDKTIAPFLMDKMDYDFMALDRPSTPLIDRGVALHKMIRLITMGLGGEYLNFM 653
Db 568 HDQALVGDKTIAPFLMDKMDYDFMALDRPSTPTPIDRGIALHKMIRLITMGLGGEYLNFM 627
Qy 654 GNEFGHPWIDFPRGDLHLFSGKFVPGNNYSYDKCRRRFPDLGNSKHLRYHGMQBFDOAIQ 713
Db 628 GNEFGHPWIDFPRGPORLPFGKFI PGNNNSYDKCRRRFPDLGADLYRYHGMQBFDOAMQ 687
Qy 714 HLEAAGFMTESEHQYISRKDERDRIIVFERGNLVFVFNHFWSSSYFYRVGCLKPGYKI 773
Db 688 HLEQKYEFMTSDHQYISRHEEDKVIIVFEKGLDVFVFNHFWSSSYFYRVGCRKPGYKV 747
Qy 774 VLDSDDPLFGGFGRLSHDAEHFSGEGWYDNRPRGFMVYTPCRTAVVAVALVE 824
Db 748 VLDSAGLFGGFGRIHHTAEHVTSDCQHDNRPHSFVYTPSRTCVVAPE 798
RESULT 9
US-10-336-753-54
; Sequence 54, Application US/10336753
; Publication No. US20030226176A1
; GENERAL INFORMATION:
; APPLICANT: Guan, Hanping
; APPLICANT: Keeling, Peter L.
; TITLE OF INVENTION: PLANT LIKE STARCHES AND THE METHOD OF MAKING THEM IN
; FILE REFERENCE: 2461-52
; CURRENT APPLICATION NUMBER: US/10/336,753
; PRIOR FILING DATE: 2003-01-06
; PRIOR APPLICATION NUMBER: US/09/402,254
; PRIOR FILING DATE: 1999-10-01
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: PCT/US98/06660
; PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-03
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 60/042,939
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-04-04
; NUMBER OF SEQ ID NOS: 77
; SOFTWARE: PatentIn ver. 2.1
; SEQ ID NO 54
; LENGTH: 870
; TYPE: PRT
; ORGANISM: Zea mays
US-10-336-753-54
Query Match 69.7%; Score 3166.5; DB 12; Length 870;
Best Local Similarity 74.2%; Pred. No. 1.4e-293;
Matches 572; Conservative 80; Mismatches 80; Indels 39; Gaps 4;
Qy 64 ASKRVLPDG-----RIECYSSSTDQLEAGTVSEESQV---LTDVESLIMDDKIVEDE 113
Db 57 ARKAMVPEGNDGLASRADSAQFQSDLEVP-DISEETTCGAGVADAQAL----- 105
Qy 114 VKNESVPMRETVSIRKIGSPRIPPPGQRQRIYDIDPSLTGFRQHLDDYRSQYKRLREE 173
Db 106 -----NRVVPPPSDGGQKIQIDPMLQGYKHLEYRSLYRRIRSD 147
Qy 174 IDKVEGSLDAFSRGYKFGFRSETGITYREWAPGATWAALIGDFNNNPNADVMTQNEC 233
Db 148 IDEHEGGLFAFSRGYKFGFNASAEGITYREWAPGAFSAALVGDVNNWDPNADRMKNEF 207
Qy 234 GWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKDSSIPAWIKFSVQAPGELPYNGIYYDP 293
Db 208 GWEIFLPNNADGSPPIPHGSRVKIRMDTPSGIKDSSIPAWIKFSVQAPGEIPIYDGIYDP 267
Qy 294 PEEKYVFKNPQKPKSLRIYETHVGMSSSTEPINTYANFRDDVLPRIKKGYNVQJIM 353
Db 268 PEEKYVFRHAQPKPKSLRIYETHVGMSSPEPKINTYVNRDEVLPRIKKGYNVQJIM 327
Qy 354 AIQHSYVYASFGYHVTNFAASSRFGTPDDLKSLIDKAHELGLLVLMDIVHSHASTNTLD 413
Db 328 AIQHSYVYSGFYHVTNFASSRFGTPEDLKSLIDRAHELGLLVLMDIVHSHASNTLD 387
Qy 414 GLNMFDGTDGHHYFHSGRGHHMMWDSRLPNYGSWEVLRFLLSNARWMLDEYKDFGFRDG 473

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Db 388 GLNGFDGTDTHYFHSGRGHHMMWDSRLFNFGNWEVLRFLLSNARWLEEKYKFDGFRDG 447
Qy 474 VTSMMYTHHGLQVDFTGNVNEFYGATDVDAVYVLLMLNDMTHGLFPEAVTIGEDVSGMP 533
Db 448 VTSMMYTHHGLQVTFTHGNEFYGFATDVDAVYVLLMLNDLHGLYFPEAVTIGEDVSGMP 507
Qy 534 TVCIPVEDGGVGFYRLHMAVADKWEIIQKRDDEKMGDIIVHMLTNRWLEKCVSYAES 593
Db 508 TFALPVHDGGVGFYRMEHMAVADKWIIDKQSDETWKMGIIVHTLTNRWLEKCVSYAES 567
Qy 594 HDQALVGDKTIAPWLMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGGGYLNF 653
Db 568 HDQALVGDKTIAPWLMKMDYDFMALDRPSTPLIDRGIALHMKIRLITMGLGGGYLNF 627
Qy 654 GNEFGHPWIDFPRGDLHLPSCGFVPGNNYSYDKCRRRFDLGNCKHLYHGMQFDOAIQ 713
Db 628 GNEFGHPWIDFPRGQRLPSCGFIPGNNYSYDKCRRRFDLGDADLYLYHGMQFDOAQ 687
Qy 714 HLEAYGFMTSBHQYISRKDERDRIIVFERGNLVFVFNHWTSSYSYRVGCLKPGYKI 773
Db 688 HLEQYEFMTSDHQYISRKHEEDKVIIVPEKGDVVFVFNHWTSSYSYRVGCLKPGYKV 747
Qy 774 VLSDDDPLFGGFRGLSHDAEHFSGEGWYDNRPRSFMYVTPCRTAVVYA 824
Db 748 VLSDAGLFGGFRGLSHDAEHFSGEGWYDNRPRSFMYVTPCRTAVVYA 798

RESULT 10
US-09-792-127-5
; Sequence 5, Application US/09792127
; Patent No. US2002002713A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Beckles, Diane M.
; APPLICANT: Butler, Karla
; APPLICANT: Pearlstein, Rich
; TITLE OF INVENTION: Starch Branching Enzyme IIB
; FILE REFERENCE: BB1439 US NA
; CURRENT APPLICATION NUMBER: US/09/792,127
; PRIOR FILING DATE: 2001-02-23
; PRIOR FILING DATE: 2000-03-01
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 5
; LENGTH: 829
; TYPE: PRT
; ORGANISM: Hordeum vulgare
US-09-792-127-5

Query Match 69.4%; Score 3152.5; DB 9; Length 829;
Best Local Similarity 74.2%; Pred. No. 2.8e-292; Mismatches 19; Gaps 6;
Matches 570; Conservative 86; Indels 19; Gaps 6;

Qy 68 VLPGD-----RIB-CYSSSTQLEAPGTVBSQSOLVDVESLIMDDKI--VEDEVN 115
Db 64 MIPDGGSGSGTTPPSIEGSVQFESDLEVP-FIDDEPSLHDGGEDTIRSETYQVTEID 122
Qy 116 KESVPM--RETVSRKIGSKPRSPPPGQRQIYDIDPSLGFROHLDRYRSQYKURLEE 173
Db 123 AEGVSRMDKESSTVKKI---RIVPQPGNGQQIYDIDPMLRDFKYHLEYRSLYLRIRSD 178
Qy 174 IDKYGSLDASRGYKFGFSGRSEGTITYREWAPGATWAALIGDNNKPNADVMTQNEC 233
Db 179 IDEYDGGMDVFSRGYKFGFVRSAGETITYREWAPGADSAALVGDNNWDPDTADHMSKNDL 238
Qy 234 GWEIFLNNADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYDP 293
Db 239 GIWEIFLNNADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQTPGDIYPNGIYDP 298
Qy 294 PEEKYVFPKPPKPKSLRIYSHVGMSSPEPINTYANFRDVLPRIKKLGNVAVQIM 353
Db 294 PEEKYVFPKPPKPKSLRIYSHVGMSSPEPINTYANFRDVLPRIKKLGNVAVQIM 353
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Db 359 AIQSHSYASFGYHVTNFFYAASSRFGTPODLKSLIDKAHELGLJLVMDIVHSHASTNTLD 418
Qy 414 GLNPFDTGDGHYFHSGRGHHMMWDSRLFNFGNWEVLRFLLSNARWLEEKYKFDGFRPDG 473
Db 419 GLNGFDGTDTHYFHSGRGHHMMWDSRLFNFGNWEVLRFLLSNARWLEEKYKFDGFRPDG 478
Qy 474 VTSMMYTHHGLQVDFTGNVNEFYGATDVDAVYVLLMLNDMTHGLFPEAVTIGEDVSGMP 533
Db 479 ATSMYTHHGLQVTFTHGNEFYGFATDVDAVYVLLMLNDLHGLYFPEAVTIGEDVSGMP 538
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Db 539 TFALPVQVGGVGFYRLHMAVADKWEIIKSGSDSGWENIVHTLTNRWLEKCVSYAES 598
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Db 599 HDQALVGDKTIAPWLMKMDYDFMALDRPSTPLIDRGIALHMKIRLITMGLGGGYLNF 658
Qy 654 GNEFGHPWIDFPRGDLHLPSCGFVPGNNYSYDKCRRRFDLGNCKHLYHGMQFDOAIQ 713
Db 659 GNEFGHPWIDFPRGQRLPSCGFIPGNNYSYDKCRRRFDLGDADLYLYHGMQFDOAQ 718
Qy 714 HLEAYGFMTSBHQYISRKDERDRIIVFERGNLVFVFNHWTSSYSYRVGCLKPGYKI 773
Db 719 HLEQYEFMTSDHQYISRKHEEDKVIIVPEKGDVVFVFNHWTSSYSYRVGCLKPGYKV 778
Qy 774 VLSDDDPLFGGFRGLSHDAEHFSGEGWYDNRPRSFMYVTPCRTAVVYA 821
Db 779 VLSDAGLFGGFRGLSHDAEHFSGEGWYDNRPRSFMYVTPCRTAVVYA 826

RESULT 11
US-09-792-127-2
; Sequence 2, Application US/09792127
; Patent No. US2002002713A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Beckles, Diane M.
; APPLICANT: Butler, Karla
; APPLICANT: Pearlstein, Rich
; TITLE OF INVENTION: Starch Branching Enzyme IIB
; FILE REFERENCE: BB1439 US NA
; CURRENT APPLICATION NUMBER: US/09/792,127
; PRIOR FILING DATE: 2001-02-23
; PRIOR FILING DATE: 2000-03-01
; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 2
; LENGTH: 695
; TYPE: PRT
; ORGANISM: Triticum aestivum
US-09-792-127-2

Query Match 69.3%; Score 3148; DB 9; Length 695;
Best Local Similarity 80.7%; Pred. No. 5.6e-292;
Matches 556; Conservative 71; Mismatches 62; Indels 0; Gaps 0;

Qy 133 KPSRIPPPGQRQIYDIDPSLGFROHLDRYRSQYKURLEEIDKYGSLDASRGYKFG 192
Db 4 KLRILPPGNGQQIYDIDPDLRDFKYHLEYRSLYLRIRSDIDDEHGMDFVSRGYKFG 63
Qy 193 FSRSETGITYREWAPGATWAALIGDNNKPNADVMTQNECVWEIIFLNNADGSPPIPH 252
Db 64 FMRSAEGITTYREWAPGADSAALVGDNNWDPADHMSKNDLGVWEIIFLNNADGSPPIPH 123
Qy 253 GSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYDPPEEKYVFPKPPKPKSL 312
Db 124 GSRVKIRMDTPSGNKDSIPAWIKFSVQTPGDIYPNGIYDPPEEKYVFPKPPKPKSL 183
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		Matches 401; Conservative 114; Mismatches 170; Indels 58; Gaps 12;	
Qy	132 SKPR-----SIPPPGQGR-----IYDIDPSLTGFRQHLDIRYSOY 167		
Db	40 SSPRRSFGKVKTNFSPATARKNKTMVTVVVEVDHLPFIYDLDPKLEEFKDFHFNIRKRY 99		
Qy	168 KRLREEIDKYEGSLDAPSGRYEKGFSRSETGITTYREWAPGATWAAALIGDFNNNNPNADV 227		
Db	100 LDQKCLIEKHGGGLEEFSGYKLGKINGINTVDGATTYREWAPAAQQAQLIGEFNNWNGAKHK 159		
Qy	228 MTONECGWEIPLPNADGSPPIPHGSRVKIRMDTPSGN-XDSIPAMIKFSVQAPGEL-- 284		
Db	160 MEKDKFGIWSIKI-SHVNGKPAIPHNSKVKFRHRGGAGWVDRIIPAMIRYATFDASKFGA 218		
Qy	285 PYNGIYDPPREEKYVFNQPKPKSLRIYIESHVGMSSTEPINTYANFRDDVLPRIKK 344		
Db	219 PYDGVHMDPPACERYVFKPRPPKPDAPRIYEAHVGMSSGEEPEVSTYREFADNVLPRI 278		
Qy	345 LGYNAVQLMAIOEHSYAYASFGYHVTFNFAASSRFGCTPDDLKSLIDKAHELGLLVLMDIVH 404		
Db	279 NNYNTVQLMAIWEHSYAYASFGYHVTFNFAVSSRSGTPEDLKYLVDKAHSLGLRVLMVHV 338		
Qy	405 SHASTNTLUDGLNMFED-GTDGH--YFHSGPRGHMWDLSRLFNYSWEVIRELLSNARAWL 461		
Db	339 SHASNNVTDLGLNGYDVQGNTHESYFHTGDRGYHKLWDSRLFNANWEVIRELLSNLRYYM 398		
Qy	462 DEYKPDGFRFGVTSMTYTHHGLQVDFTCGNVNEFYGYATDVDAVYLLMLNDMIHGLPPE 521		
Db	399 DEFMPDGFDFGVTSMLYHHRGINKGFTGNYKEYFSLDTDVDAIYVYMLANHLMHKLLPE 458		
Qy	522 AVTIGEDVSGMPTVCIPVEDCGVGFDYRLHMAVADKWVEIIQ-KRDEDWKGDIWHMLTN 580		
Db	459 ATIVAEVSGMFPVLCRPVDEGVGFDFRLMAIPDRWIDYLNKEDRKMSSEIVQITLN 518		
Qy	581 RWLEKCVSYAESHDQALVGDKTIAFLWMDKMDYDFMALDRPSTPLIDRGVALHKMIRLI 640		
Db	519 RRYTEKCIAYAESHDQSIQVGDKTIAFLMDKEMVTGMSDLQPASPTINRGIALQKMIHFI 578		
Qy	641 TWGLGEGYINFMGNEFGHPWIDPPRGDLHLPSCGKFPVGNYSYDKCRRFPDLGNSKHL 700		
Db	579 TMAILGGDGYLNFMGNEFGHPWIDFPR-----EGNWSYDKCRRQWSLVDTDHL 627		
Qy	701 RY-----HGWOEFDAQIOHLEEAYGPMTSEHQVISRKDERDRIIVFERGNLVFVFNPH 753		
Db	628 RYKVPVKYINTVNAFDAQANNALEEFSLSSKQIVSDMNEKDKVIVFERGDLVFNFNH 687		
Qy	754 WTSYSYDYRVGCLKPGKYKIVLSDDDPLFGGFGRLSHDAHF-SFEGW-----YDNRP 805		
Db	688 PNKTYKGYKVGCDLPKRYRVALDSALVFGGHRVGHVDHFTSPGMPGVPETNFNRP 747		
Qy	806 RSFWYVTCRTAVVYALVEVE 828		
Db	748 NSFVLSPPRTCAVYRYVDEDE 770		

Search completed: July 13, 2004, 16:13:00
Job time : 54 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: July 13, 2004, 15:59:55 ; Search time 22 Seconds
(without alignments)
1961.787 Million cell updates/sec

Title: US-09-297-703C-29
Perfect score: 4545
Sequence: 1 MGHYISGIRFPFCAPLCKSQ.....AVVYALVEDEVENELEPVAG 836

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents_AA.*

- 1: /cgn2_6/ptodata/2/iaa/5A_COMB.pdp.*
- 2: /cgn2_6/ptodata/2/iaa/5B_COMB.pdp.*
- 3: /cgn2_6/ptodata/2/iaa/6A_COMB.pdp.*
- 4: /cgn2_6/ptodata/2/iaa/6B_COMB.pdp.*
- 5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pdp.*
- 6: /cgn2_6/ptodata/2/iaa/backfiles.pdp.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	3387.5	74.5	878	4	US-09-658-499-2
3	3261.5	71.8	814	4	US-09-731-166-10
4	3209	70.6	729	4	US-09-609-040-4
5	3169	69.7	799	4	US-09-731-166-12
6	3160	69.5	799	3	US-08-941-445A-15
7	2204	48.5	464	3	US-09/087
8	2204	48.5	464	4	US-09-658-499-4
9	2192.5	48.2	906	4	US-09-367-895-41
10	2124	46.7	822	3	US-08-941-445A-17
11	2124	46.7	822	4	US-09-731-166-14
12	1635.5	36.0	566	3	US-08-104-158-2
13	1635.5	36.0	566	4	US-09-609-040-2
14	576	12.7	762	4	US-09-579-365-2
15	570	12.5	621	4	US-09-537-120-2
16	550.5	12.1	768	4	US-09-489-039A-11131
17	542.5	11.9	652	3	US-08-528-026C-4
18	520	11.4	722	4	US-09-198-452A-513
19	503.5	11.1	823	4	US-09-252-991A-24768
20	266.5	5.9	559	3	US-09-242-690A-15
21	266.5	5.9	559	4	US-09-298-924-6
22	266.5	5.9	559	4	US-09-908-855-15
23	266.5	5.9	648	4	US-09-252-991A-24628
24	245	5.4	893	4	US-09-514-302-4
25	245	5.4	1938	4	US-09-514-302-2
26	243.5	5.4	793	4	US-09-463-238-5
27	232.5	5.1	606	3	US-09-187-124-2

28	232.5	5.1	606	4	US-09-850-936-2	Sequence 2, Appli
29	226	5.0	325	3	US-08-961-083-80	Sequence 80, Appl
30	226	5.0	325	4	US-09-536-784-80	Sequence 80, Appl
31	224.5	4.9	589	1	US-08-399-646-2	Sequence 2, Appli
32	224.5	4.9	589	1	US-08-607-321-2	Sequence 2, Appli
33	224.5	4.9	589	2	US-08-961-240-2	Sequence 2, Appli
34	224.5	4.9	589	2	US-08-605-501-2	Sequence 12, Appl
35	224.5	4.9	596	1	US-08-399-646-12	Sequence 12, Appl
36	224.5	4.9	596	1	US-08-607-321-12	Sequence 12, Appl
37	224.5	4.9	596	2	US-08-961-240-12	Sequence 12, Appl
38	224.5	4.9	596	2	US-08-605-501-12	Sequence 12, Appl
39	223	4.9	597	1	US-08-399-646-4	Sequence 4, Appli
40	223	4.9	597	1	US-08-607-321-4	Sequence 4, Appli
41	223	4.9	597	2	US-08-961-240-4	Sequence 4, Appli
42	223	4.9	597	2	US-08-605-501-4	Sequence 4, Appli
43	223	4.9	598	1	US-08-399-646-14	Sequence 14, Appl
44	223	4.9	598	1	US-08-607-321-14	Sequence 14, Appl
45	223	4.9	598	2	US-08-961-240-14	Sequence 14, Appl

ALIGNMENTS

RESULT 1
US-09-087-277-2
; Sequence 2, Application US/09087277B
; Patent No. 6169226
; GENERAL INFORMATION:
; APPLICANT: EK, BO
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/09/087,277B
; CURRENT FILING DATE: 1998-05-29
; EARLIER APPLICATION NUMBER: PCT/SE96/01558
; EARLIER FILING DATE: 1996-11-28
; EARLIER APPLICATION NUMBER: SE 9504272-7
; EARLIER FILING DATE: 1995-11-29
; EARLIER APPLICATION NUMBER: SE 9601506-0
; EARLIER FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 878
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:belI gene (branching enzyme II) f
US-09-087-277-2

Query Match	74.5%;	Score	3387.5;	DB	3;	Length	878;		
Best Local Similarity	71.9%;	Pred. No.	0;						
Matches	621;	Conservative	92;	Mismatches	116;	Indels	35;	Gaps	5;
Qy	4	YTISGIRFPFCAP-LCKSQSTGFGHYRTSSCLSPNFKEAFRRVFSCKSSHESDSNNMV	62						
Db	3	YTLGVRFPFPVSVYKSGNSGDRRNANKSVFLKXLSLRKILAEKSYNSERPSTV	62						
Qy	63	TAKRVL-PDGRIECYSSSTDQLEAPGTVEESQVLTVESLIMDD----	KIVDEV----	114					
Db	63	AASGKVLVPTQSDSSSSSDTQFEFTTSPNSPASTDVDSSTWEHARQIKTENDVEPS	122						
Qy	115	-----NKESVPMRETIVIRKIGS-----	KPSIPPPRGQRIYD	148					
Db	123	SDLTGSVEELDFASSLQLEQSGKLESKTLNTSEETIIDSRRIRERGIPPGLGQIYE	182						
Qy	149	IDPSLTGFRQHLDDYRYSQYKRLREEDKYEGSLDAFSRGYKGFSESGTCTTYREWAPG	208						
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Qy 269 SIPAWIKFSVQAPGELPYNGIYDDPPEEKYVFNQPKPKSLRIYESHVGMSSSTPVI 328
Db 303 SIPAWINYSQLPDEIPYNGIYDDPPEEKYVFNQPKPKSLRIYESHVGMSSPEPKI 362
Qy 329 NYANFRDDVLPRIKKLGYNVQLMAIQEHSYASFGYHVTNFYAAASRRGTDPDLKSLI 388
Db 363 NSYVNFDEVLPRIKKLGYNVQLMAIQEHSYASFGYHVTNFYAAASRRGTDPDLKSLI 422
Qy 389 DKAHELGLLVMDIVHSHASNTLDGLNMPDGTGDFHSGPRGHMMDSRLPNYGSWE 448
Db 423 DKAHELGLLVMDIVHSHASNTLDGLNMPDGTGDFHSGPRGHMMDSRLPNYGSWE 482
Qy 449 VLRELLSNARWLDDEYKFDGFRDGVTSMMYTHHGLQVDFGTGNYNEYPGVATDVAVVYL 508
Db 483 VLRELLSNARWLDDEYKFDGFRDGVTSMMYTHHGLSVGFTGNYEYFGLATDVAVVYL 542
Qy 509 MLLNDMTHGLFPEAVTIGEDVSGMPTVCIPVEDGGVGFYRLHMAVADKWVEIIQKDED 568
Db 543 MLVNDLHGLFPAITIGEDVSGMPTFXIPVQDGGVGFYRLHMAIADKWIELLKXKDED 602
Qy 569 WKMGDIHMLTNRRLWLEKCVSYAESHDQALVGDKTIAFWLMDKMDYDFMALDRSTPLID 628
Db 603 WRVGDIVHTLTNRRLWSEKCVSYAESHDQALVGDKTIAFWLMDKMDYDFMALDRSTSLID 662
Qy 629 RGVALHKMIRLITMGLGEGYLNFMGNFEGHPWIDFPRGDLHLPSGKFVPGNNYSYDKC 688
Db 663 RGIALHKMIRLVTMGLGEGYLNFMGNFEGHPWIDFPPRAEQHLSDGSVIPGNQFSYDKC 722
Qy 689 RRRFDLGNKHLRYHGMQEFQDAIHLBEAYGFWTSEHOYISRKDEDRRIIVFERGNLNF 748
Db 723 RRRFDLGNKHLRYHGMQEFQDAIHLBEAYGFWTSEHOYISRKDEDRMIIVFERGNLNF 782
Qy 749 VFNPHWTSSYSDYRIGCLPKGYKIVLSDSDPLFGGFGRLSHDAEHFSEFGWYDNRPRSF 808
Db 783 VFNPHWTSSYSDYRIGCLPKGYKIVLSDSDPLFGGFGRLSHDAEHFSEFGWYDNRPRSI 842
Qy 809 MYTTPCARTAVVYALVDEVEENELE 832
Db 843 MYTAPSRRTAVVYALVDKEEEEEEE 866
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RESULT 2

US-09-658-499-2

; Sequence 2, Application US/09658499

; Patent No. 6469231

; GENERAL INFORMATION:

; APPLICANT: EK, Bo

; APPLICANT: KHOSNOODI, Jamshid

; APPLICANT: LARSSON, Clas-Tomas

; APPLICANT: LARSSON, Hakan

; APPLICANT: RASK, Lars

; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO

; FILE REFERENCE: 003300-486

; CURRENT APPLICATION NUMBER: US/09/658,499

; CURRENT FILING DATE: 2000-09-08

; PRIOR APPLICATION NUMBER: 09/087,277

; PRIOR FILING DATE: 1998-05-29

; PRIOR APPLICATION NUMBER: PCT/SE96/01558

; PRIOR FILING DATE: 1996-11-28

; PRIOR APPLICATION NUMBER: SE 9504272-7

; PRIOR FILING DATE: 1995-11-29

; PRIOR APPLICATION NUMBER: SE 9601506-0

; PRIOR FILING DATE: 1996-04-19

; NUMBER OF SEQ ID NOS: 4

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 2

; LENGTH: 878

; TYPE: PRN

; ORGANISM: Unknown

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; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:beII gene (branching enzyme II) f:
; OTHER INFORMATION: Solanum tuberosum (potato)
US-09-658-499-2
```

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Query Match 74.5%; Score 3387.5; DB 4; Length 878;
Best Local Similarity 71.9%; Pred. No. 0;
Matches 621; Conservative 92; Mismatches 116; Indels 35; Gaps 5;
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Qy 4 YTISGIRFPDAP-LCKSQSTGFHGYRTSSCLSFNKEAFSRVFGKSSHEDSSNMVY 62
Db 3 YTLGSGVRFPVPVSYKSNFSSNGDRNANKSVFLKKSLSRKLAEKSSYNSESAPSTV 62
Qy 63 TSKRVL-PDGRTECVSSSTDLQLEAPCTVSEESQVLTDVESLIMDD----KIVDEVE- 114
Db 63 AASGKVLVPGTQSDSSSSSTDDQEFETSPENSPASTDVDSSTMEHARQIKTENDVPEPS 122
Qy 115 -----NKESYPMRETVSIRKIGS-----KPSRIPPPGGRQRIYD 148
Db 123 SDLTGSVEELDFASSLQLEGKLEESKTLNTSEETIIDESDRIRERIPPPGLGQKIYE 182
Qy 149 IDPSLTGFROHLDIRYRQYKRLREEIDKYEGSLDAFSRGYKEKFGSRSEGTIYREWAPC 208
Db 183 IDPLLTNYRQHLDIRYRQYKRLREEIDKYEGSLDAFSRGYKEKFGSRSEGTIYREWAPC 242
Qy 209 ATWAALIGDNNPNADVMTONECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKD 268
Db 243 AQSAAALIGDNNPNADVMTONECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSGVKD 302
Qy 269 SIPAWIKFSVQAPGELPYNGIYDDPPEEKYVFNQPKPKSLRIYESHVGMSSSTPVI 328
Db 303 SIPAWINYSQLPDEIPYNGIYDDPPEEKYVFNQPKPKSLRIYESHVGMSSPEPKI 362
Qy 329 NYANFRDDVLPRIKKLGYNVQLMAIQEHSYASFGYHVTNFYAAASRRGTDPDLKSLI 388
Db 363 NSYVNFDEVLPRIKKLGYNVQLMAIQEHSYASFGYHVTNFYAAASRRGTDPDLKSLI 422
Qy 389 DKAHELGLLVMDIVHSHASNTLDGLNMPDGTGDFHSGPRGHMMDSRLPNYGSWE 448
Db 423 DKAHELGLLVMDIVHSHASNTLDGLNMPDGTGDFHSGPRGHMMDSRLPNYGSWE 482
Qy 449 VLRELLSNARWLDDEYKFDGFRDGVTSMMYTHHGLQVDFGTGNYNEYPGVATDVAVVYL 508
Db 483 VLRELLSNARWLDDEYKFDGFRDGVTSMMYTHHGLSVGFTGNYEYFGLATDVAVVYL 542
Qy 509 MLLNDMTHGLFPEAVTIGEDVSGMPTVCIPVEDGGVGFYRLHMAVADKWVEIIQKDED 568
Db 543 MLVNDLHGLFPAITIGEDVSGMPTFXIPVQDGGVGFYRLHMAIADKWIELLKXKDED 602
Qy 569 WKMGDIHMLTNRRLWLEKCVSYAESHDQALVGDKTIAFWLMDKMDYDFMALDRPSTPLID 628
Db 603 WRVGDIVHTLTNRRLWSEKCVSYAESHDQALVGDKTIAFWLMDKMDYDFMALDRXSTSLID 662
Qy 629 RGVALHKMIRLITMGLGEGYLNFMGNFEGHPWIDFPRGDLHLPSGKFVPGNNYSYDKC 688
Db 663 RGIALHKMIRLVTMGLGEGYLNFMGNFEGHPWIDFPPRAEQHLSDGSVIPGNQFSYDKC 722
Qy 689 RRRFDLGNKHLRYHGMQEFQDAIHLBEAYGFWTSEHOYISRKDEDRRIIVFERGNLNF 748
Db 723 RRRFDLGNKHLRYHGMQEFQDAIHLBEAYGFWTSEHOYISRKDEDRMIIVFERGNLNF 782
Qy 749 VFNPHWTSSYSDYRIGCLPKGYKIVLSDSDPLFGGFGRLSHDAEHFSEFGWYDNRPRSF 808
Db 783 VFNPHWTSSYSDYRIGCLPKGYKIVLSDSDPLFGGFGRLSHDAEHFSEFGWYDNRPRSI 842
Qy 809 MYTTPCARTAVVYALVDEVEENELE 832
Db 843 MYTAPSRRTAVVYALVDKEEEEEEE 866
```

RESULT 3

US-09-731-166-10

; Sequence 10, Application US/09731166

Patent No. 6639126
GENERAL INFORMATION:
APPLICANT: Sewalt, Vincent J. H.
APPLICANT: Singletary, George W.
TITLE OF INVENTION: Production of Modified Polysaccharides
FILE REFERENCE: 35718/206348
CURRENT APPLICATION NUMBER: US/09/731,166
CURRENT FILING DATE: 2000-12-06
PRIOR APPLICATION NUMBER: 60/169,993
PRIOR FILING DATE: 1999-12-06
NUMBER OF SEQ ID NOS: 16
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 10
LENGTH: 814
TYPE: PRT
ORGANISM: Zea mays
US-09-731-166-10

Query Match 71.8%; Score 3261.5; DB 4; Length 814;
Best Local Similarity 74.0%; Pred. No. 8.6e-309;
Matches 604; Conservative 70; Mismatches 109; Indels 33; Gaps 5;
QY 36 FNFEAFRRVPS-----GKSHESDSSNMVWVASKRV-----LPDGRIECYSSST 81
DB 7 FRKDAFRTVLSCAGAFKVLVPCGGSDLLSSAEPVDTQPELQIPEAEALTVEKTS 66
QY 82 DQLEAPGTVSEBSQVLTDESIMDDKI-----VEDEVNKSVPMTRETVSIRKIGS 132
DB 67 SPTQTSAVAENASSGVEAEERPELSEVIGVGTGKTIDGAGIKAKAFLE-----E 118
QY 133 KPRSIPPGCGRIYIDPSLTGFRQHLDRYSQYKRLREEDIDKYEGSLDAFSRGYKFG 192
DB 119 KPRVIPPDCGQRIVEIDPMLEGGFRGLDRYSEYKRLRAAIDQHEGGLDAFSRGYKLG 178
QY 193 FSRSTGITYREWAPGATWAALIGFNNWPNADVMTONECGWEIFLPNNADSGPPPH 252
DB 179 FTRSAEGITYREWAPGAYSAALVGFNNWPNADAMARNEYGVWEIFLPNNADSGPAIP 238
QY 253 GSRVKIRMDTPSGNKDSIPAMIKFSVQAPGELPYNGIYYDPEEEKYVFPKQPQPKSL 312
DB 239 GSRVKIRMDTPSGVKDSIPAMIKFSVQAPGEIPYNGIYYDPEEEKYVFPKQPQPKSL 298
QY 313 RIYESHVGMSSTPEVINTYANFRDVLPRIKKLGYNNAVQIMAIQBSHYASFGYHVTN 372
DB 299 RIYESHVGMSSTPEKINTYANFRDEVLPRIKKGYNNAVQIMAIQBSHYASFGYHVTN 358
QY 373 AASSRFGTDDLSLIDKAHELGLLVMDIVHSHASTNTLDGLNPFDTGDGHYFHSGPRG 432
DB 359 APSRFRGTPEDLKSLIDKAHELGLLVMDIVHSHSSNNLTDLGLNGFDGTDTHYFHG 418
QY 433 HHMMDSRLFNYSWEVLRLLSNARWMLDEVKFPDGFDTGVTSMYTHHGLQVDFTCNY 492
DB 419 HHMMDSRLFNYSWEVLRLLSNARWMLDEVKFPDGFDTGVTSMYTHHGLQVDFTCNY 478
QY 493 NEYFGYATDVAVVYLMMLNDMIHGLFPEAVTIGEDVSGMPTVCIPVEDGGVGDFYRLHM 552
DB 479 GEYFGFATDVAVVYLMMLNDLIRGLYPEAVSIGEDVSGMPTFCIPVDGGVGDFYRLHM 538
QY 553 AVADKWEIIOKRDEWKGDIIVHMLTNRRLWLEKCVSAESHDQALVGDKTIAFWLMDKD 612
DB 539 AVPDKWEIILKQSDYEWBGDIIVHMLTNRRLWLEKCVTYESHDQALVGDKTIAFWLMDKD 598
QY 613 MYDFWALDRPSTPLIDRGVALHMKLRLITMGLGGEGYLNFMNGERFGHPWIDFPRGLHL 672
DB 599 MYDFWALDRPSTPLIDRGVALHMKLRLITMGLGGEGYLNFMNGERFGHPWIDFPRGP 658
QY 732 PSGKEVPNGNYSYDKRCRRFOLGNSKHLRYHGMQEFDOAIQHLEBAYGFMTESEHOYISRK 732
DB 659 PNGSVIPGNNSFDKRCRRFDGLDADLYRGQMGEFDOAMQHLEKGYEFMTSDHSYVSRK 718
QY 733 DERDRIIVFERGNLIVFVNFHWTSSYDYRVGCLKPKGKIVLSDDDPLFGGFRGLSHDA 792
DB 719 HEEDKVIIFERGLVFEVNFHWSNYSFYRVGCFKPGKYKIVLSDDDGLFGGFRGLDHA 778

QY 793 EHFSFEGWYDNRPSPFMVYTPCRTAVVVAL--VEDE 826
DB 779 EYFTADWPHDNRPCFSVYAPSRTPAVVYAPAGA 814

RESULT 4

US-09-609-040-4
Sequence 4, Application US/09609040
Patent No. 6570066
GENERAL INFORMATION:
APPLICANT: Willmitzer, et al.
TITLE OF INVENTION: NUCLEOTIDE SEQUENCES ENCODING ENZYMES THAT ALTER THE CARBOHYDRATE
FILE REFERENCE: 514413-3515.1
CURRENT APPLICATION NUMBER: US/09/609,040
CURRENT FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: PCT/EP92/00302
PRIOR FILING DATE: 1992-02-11
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
LENGTH: 729
TYPE: PRT
ORGANISM: Triticum aestivum
US-09-609-040-4

Query Match 70.6%; Score 3209; DB 4; Length 729;
Best Local Similarity 78.0%; Pred. No. 9.4e-304; Indels 10; Gaps 3;
Matches 575; Conservative 75; Mismatches 77;
QY 88 GTVSEESQVLTDESIMDDKIVEDEVNKSVPMTRETVSIRKIGSKRSPRPPGGRGRIY 147
DB 3 GGTAELKQSSEPTQGIIV---ETITDGVTK---GVKELV---VGEKRVVVPKPGDGQKIY 52
QY 148 DIDPSLTGFRQHLDRYSQYKRLREEDIDKYEGSLDAFSRGYKFGPGRSETGITYREWAP 207
DB 53 EIDPTLXDFRSHLDYRYREYKIRAAIDQHEGGLDAFSRGYKLGFTRSAEGITYREWAP 112
QY 208 GATWAALIGFNNWPNADVMTONECGWEIFLPNNADSGPPIPHGSRVKIRMDTPSGNK 267
DB 113 GAHSAALVGFNNWPNADAMTDDYGVWEIFLPNNADGSAIPHGSRVKIRMDTPSGVK 172
QY 268 DSIPAMIKFSVQAPGELPYNGIYYDPEEEKYVFPKQPQPKSLRIYESHVGMSSTPEV 327
DB 173 DSISAWIKFSVQAPGEIPFNGIYYDPEEEKYVFPKQPQPKSPESLRIYESHIGNSSPEPK 232
QY 328 INTYANFRDVLPRIKKLGYNNAVQIMAIQBSHYASFGYHVTNPFYAASSRFGTDDLSL 387
DB 233 INSANFRDEVLPRIKRLGYNNAVQIMAIQBSHYASFGYHVTNPFAPSSRFGTPEDLKSL 292
QY 388 IDKAHELGLLVMDIVHSHASTNTLDGLNPFDTGDGHYFHSGPRGHMMDSRLFNYSW 447
DB 293 IDRAHELGLLVMDIVHSHSSNNLTDLGLNGFDGTDTHYFHGPRGHMMDSRLFNYSW 352
QY 448 EVLRFLLSNARWMLDEVKFPDGFDTGVTSMYTHHGLQVDFTCNYNEFYGYATDVAVVY 507
DB 353 EVLRFLLSNARWMLDEVKFPDGFDTGVTSMYTHHGLQVDFTCNYNEFYGYATDVAVVY 412
QY 508 LMLNDMIHGLFPEAVTIGEDVSGMPTVCIPVEDGGVGDFYRLHMAVADKWEIIOKRDE 567
DB 413 LMLVNDLIHGLYPDVAVSIGEDVSGMPTFCIPVDGGVGDFYRLHMAVADKWEIILKQSD 472
QY 568 DWKMGDIIVHMLTNRRLWLEKCVSAESHDQALVGDKTIAFWLMDKMDYDFWALDRPSTPLI 627
DB 473 SWKMGDIIVHMLTNRRLWLEKCVTYESHDQALVGDKTIAFWLMDKMDYDFWALDRPSTPRI 532
QY 628 DRGVALHMKLRLITMGLGGEGYLNFMNGERFGHPWIDFPRGLHLPSGKFPVGNYSYDK 687
DB 533 DRGVALHMKLRLITMGLGGEGYLNFMNGERFGHPWIDFPRGPOTLPTGKVLPGNNNYDK 592
QY 688 CRRRFDLGNSKHLRYHGMQEFDOAIQHLEBAYGFMTESEHOYISRKDRDRIIVFERGNLIV 747

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Db 593 CRRRFDLGDABFLRYRGHMQEFDQAMQHLEEKYGFMTSEHQVSRKHEEDKVIIFERGDV 652
Qy 748 FVENFHTSSYSDYRVGCLKCKYKIVLSDDDPLFGGRLSHDAEHFSPGWDNRP 807
Db 653 FVENFHTSSYSDYRVGCLKCKYKIVLSDDDPLFGGRLSHDAEHFSPGWDNRP 712
Qy 808 FMVYTPCRTAVVYALVE 824
Db 713 FSVYTPRTAVVYALTE 729

RESULT 5
US-09-731-166-12
; Sequence 12, Application US/09731166
; Patent No. 6639126
; GENERAL INFORMATION:
; APPLICANT: Sewalt, Vincent J. H.
; APPLICANT: Singletary, George W.
; TITLE OF INVENTION: Production of Modified Polysaccharides
; FILE REFERENCE: 35718/206348
; CURRENT APPLICATION NUMBER: US/09/731,166
; CURRENT FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: 60/169,993
; FILING DATE: 1999-12-06
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 799
; TYPE: PRT
; ORGANISM: Zea mays
US-09-731-166-12

Query Match 69.7%; Score 3169; DB 4; Length 799;
Best Local Similarity 74.4%; Pred. No. 8.8e-300;
Matches 574; Conservative 80; Mismatches 78; Indels 40; Gaps 5;

Qy 64 ASKRLV-PDG-----RIEYSSSTDOLEAPGTVSEESQV---LTDVESLIMDDKIVED 112
Db 57 ARKAVMVEGENDGLASRADSAQFSDELEVP-DISEETTCGAGVADAQAL----- 106
Qy 113 EVNKESVPMRETVSIRKIGSKRSPIPPGRQRIYDIDPSLTGFRQHLDRYSQYKRLRE 172
Db 107 -----NRVRVVPDSDGQKIFQIDPMLQGYKYHLEYRYSLYRRIRS 147
Qy 173 EIDYKESGLDAFSGRYEKGFSRSETGITTYREWAPGATWAALIGDNNWPNADVTONE 232
Db 148 DIDEHEGLEAFSRYEKGFSRSETGITTYREWAPGATWAALIGDNNWPNADVTONE 207
Qy 233 CGVWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKDSIPAMIKFSVQAPGELPYNGIYD 292
Db 208 FGWWEIFLPNNADGSPPIPHGSRVKIRMDTPSGIKDSIPAMIKFSVQAPGELPYNGIYD 267
Qy 293 PPEEKYVFNQPKRPSKRLRIYSHVQMSSTPEVINTYANFRDDVLPRIKGLGNVQL 352
Db 268 PPEEKYVFNQPKRPSKRLRIYSHVQMSSTPEVINTYANFRDDVLPRIKGLGNVQL 327
Qy 353 MAIOESHYASGVHVTNFFYASRSFGTPDDLKSLIDKAEHLGLLVMDIVHSHASTNLT 412
Db 328 MAIOESHYASGVHVTNFFYASRSFGTPDDLKSLIDKAEHLGLLVMDIVHSHASTNLT 387
Qy 413 DGLNMFDTGDGTHYFHSGRPHHMMWDSRLFNYSMEVLRFLLSNARWLDYKFDGRFD 472
Db 398 DGLNMFDTGDGTHYFHSGRPHHMMWDSRLFNYSMEVLRFLLSNARWLDYKFDGRFD 447
Qy 473 GVTSMYTHHGLQVDTFTGNFNEYFGATDVAVVYVLMVNDLHGLYPEAVTIGEDVSGM 532
Db 448 GVTSMYTHHGLQVDTFTGNFNEYFGATDVAVVYVLMVNDLHGLYPEAVTIGEDVSGM 507
Qy 533 PTVCIPVEDGGVGFYRLHMAVADKWEIIOKRDEDMKGDIVMLTNRWLEKCVSYAE 592
Db 508 PTFALPVHDGGVGFYRLHMAVADKWEIIOKRDEDMKGDIVMLTNRWLEKCVSYAE 567
Qy 593 SHDQALVGDKTIAFWLMDKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLN 652
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Db 568 SHDQALVGDKTIAFWLMDKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLN 627
Qy 653 MGNEFGHPEWIDFPRGDLHLPSGKFVPGNNYSYDKCRRRFDLGNKHLRVHGMQEDQAI 712
Db 628 MGNEFGHPEWIDFPRGDLHLPSGKFVPGNNYSYDKCRRRFDLGNKHLRVHGMQEDQAI 687
Qy 713 QHLEEAYGFMTEHQVTSRKDRDRIIVFERGNLGVFVFNHMTSSYSDYRVGCLKPGYK 772
Db 688 QHLEEAYGFMTEHQVTSRKDRDRIIVFERGNLGVFVFNHMTSSYSDYRVGCLKPGYK 747
Qy 773 IVLSDDDPLFGGRLSHDAEHFSGWYDNRPRSFVYTPCRTAVVYALVE 824
Db 748 VVLDSDAGLFGGFSRIHHAHEHTADCSHDNRPSFSVYTPCRTAVVYALVE 799

RESULT 6
US-08-941-445A-15
; Sequence 15, Application US/08941445A
; Patent No. 6107060
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; APPLICANT: Guan, Hanping
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
; STREET: 5370 Manhattan Circle
; CITY: Boulder
; STATE: CO
; COUNTRY: US
; ZIP: 80303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/941,445A
; FILING DATE: 30-SEP-1997
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/026,855
; FILING DATE: 30-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Winner, Ellen P
; REGISTRATION NUMBER: 28,547
; REFERENCE/DOCKET NUMBER: 89-97
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 499-8080
; TELEFAX: (303) 499-8089
; INFORMATION FOR SEQ ID NO: 15:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 799 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-941-445A-15

Query Match 69.5%; Score 3160; DB 3; Length 799;
Best Local Similarity 74.2%; Pred. No. 6.7e-299;
Matches 573; Conservative 79; Mismatches 80; Indels 40; Gaps 5;

Qy 64 ASKRLV-PDG-----RIEYSSSTDOLEAPGTVSEESQV---LTDVESLIMDDKIVED 112
Db 57 ARKAVMVEGENDGLASRADSAQFSDELEVP-DISEETTCGAGVADAQAL----- 106
Qy 113 EVNKESVPMRETVSIRKIGSKRSPIPPGRQRIYDIDPSLTGFRQHLDRYSQYKRLRE 172
Db 107 -----NRVRVVPDSDGQKIFQIDPMLQGYKYHLEYRYSLYRRIRS 147
Qy 173 EIDYKESGLDAFSGRYEKGFSRSETGITTYREWAPGATWAALIGDNNWPNADVTONE 232
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Db 148 DIDEHEGGLAEFSRSEYKFGFNASAEITYREWAFSAALVGVNWNMDPNADMSKNE 207
Qy 233 CGWEIFLPPNADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYD 292
Db 208 FGVWEIFLPPNADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYD 267
Qy 293 PPEEKYVFNQPKPKRPSLRIRYESHVGMSTPEVINTYANFRDDVLPRIKKLGYNVQLMAIOEHS 352
Db 268 PPEEKYVFNQPKPKRPSLRIRYESHVGMSTPEVINTYANFRDDVLPRIKKLGYNVQLMAIOEHS 327
Qy 353 MAIOEHSYASFGYHVTNFFAASRFGTDDKSLIDKAHELGLLVLMIDIVHSHASTNLT 412
Db 328 MAIOEHSYASFGYHVTNFFAASRFGTDDKSLIDKAHELGLLVLMIDIVHSHASTNLT 387
Qy 413 DCLNMFDTGTHYFHSGRGHHMMWDSRLFNYSWEVLRLFNLSNARWMLDEVKFGDGRFD 472
Db 388 DCLNMFDTGTHYFHSGRGHHMMWDSRLFNYSWEVLRLFNLSNARWMLDEVKFGDGRFD 447
Qy 473 GVTSMYTHGLQVDTFTGNFNEFGYATDVDAVYVLMNDIMHGLFPEAVTIGEDVSGM 532
Db 448 GVTSMYTHGLQVDTFTGNFNEFGYATDVDAVYVLMNDIMHGLFPEAVTIGEDVSGM 507
Qy 533 PTVCIPEVDGGVGFYRHLMAVADKWVEIIQKRDDEWKGDIIVHMLTNRWLEKCVYAE 592
Db 508 PTVCIPEVDGGVGFYRHLMAVADKWVEIIQKRDDEWKGDIIVHMLTNRWLEKCVYAE 567
Qy 593 SHDQALVGDGKTAFWLMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLN 652
Db 568 SHDQALVGDGKTAFWLMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLN 627
Qy 653 MGNEFGPEWIDFPGRQPLPSGKFPVGNYSYDKCRRRFDLGNKHLRYHGMQEFDOAI 712
Db 628 MGNEFGPEWIDFPGRQPLPSGKFPVGNYSYDKCRRRFDLGNKHLRYHGMQEFDOAI 687
Qy 713 QHLEAYGFMSEHGYISRKDERILIVFERGNLVFNFNHTSSYDYRVGCLKPKYK 772
Db 688 QHLEAYGFMSEHGYISRKDERILIVFERGNLVFNFNHTSSYDYRVGCLKPKYK 747
Qy 773 IVLSDDDLPGFGFGLSHDAEHFSGEGWYDNRPSFMVYTPCRTAVVYALVE 824
Db 748 IVLSDDDLPGFGFGLSHDAEHFSGEGWYDNRPSFMVYTPCRTAVVYALVE 799

RESULT 7
US-09/087
; Sequence 4, Application US/09087277B
; Patent No. 6169226
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/09/087,277B
; CURRENT FILING DATE: 1998-05-29
; EARLIER APPLICATION NUMBER: PCT/SE96/01558
; EARLIER FILING DATE: 1996-11-28
; EARLIER APPLICATION NUMBER: SE 9504272-7
; EARLIER FILING DATE: 1995-11-29
; EARLIER APPLICATION NUMBER: SE 9601506-0
; EARLIER FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 4
; LENGTH: 464
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: beII gene fragment (branching enz
US/09/087,277-4

Query Match 48.5%; Score 2204; DB 3; Length 464;
Best Local Similarity 84.0%; Pred. No. 5e-206;
Matches 389; Conservative 40; Mismatches 34; Indels 0; Gaps 0;
Qy 240 LPNVADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYDPEBEKY 299
Db 1 LPNVADGSPPIPHGSRVKIRMDTPSGNKDSIPAWIKFSVQAPGELPYNGIYDPEBEKY 60
Qy 300 VFKNPQPKRPSLRIRYESHVGMSTPEVINTYANFRDDVLPRIKKLGYNVQLMAIOEHS 359
Db 61 IFQHPRPKPKRPSLRIRYESHVGMSTPEVINTYANFRDDVLPRIKKLGYNVQLMAIOEHS 120
Qy 360 YYASFGYHVTNFFAASRFGTDDKSLIDKAHELGLLVLMIDIVHSHASTNLTGLNMF 419
Db 121 YYASFGYHVTNFFAASRFGTDDKSLIDKAHELGLLVLMIDIVHSHASTNLTGLNMF 180
Qy 420 GTDGHYFHSGRGHHMMWDSRLFNYSWEVLRLFNLSNARWMLDEVKFGDGRFDGVTSMY 479
Db 181 GTDGHYFHSGRGHHMMWDSRLFNYSWEVLRLFNLSNARWMLDEVKFGDGRFDGVTSMY 240
Qy 480 THGLQVDTFTGNFNEFGYATDVDAVYVLMNDIMHGLFPEAVTIGEDVSGMPTVCIPV 539
Db 241 THGLQVDTFTGNFNEFGYATDVDAVYVLMNDIMHGLFPEAVTIGEDVSGMPTVCIPV 300
Qy 540 EDGCVGFYRHLMAVADKWVEIIQKRDDEWKGDIIVHMLTNRWLEKCVYAEHSDQALV 599
Db 301 EDGCVGFYRHLMAVADKWVEIIQKRDDEWKGDIIVHMLTNRWLEKCVYAEHSDQALV 360
Qy 600 GDKTIAFWLMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLNFMGNEFGH 659
Db 361 GDKTIAFWLMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGYLNFMGNEFGH 420
Qy 660 PEWIDFPGRQPLPSGKFPVGNYSYDKCRRRFDLGNKHLRY 702
Db 421 PEWIDFPGRQPLPSGKFPVGNYSYDKCRRRFDLGNKHLRY 463

RESULT 8
US-09-658-499-4
; Sequence 4, Application US/09658499
; Patent No. 6469231
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/09/658,499
; CURRENT FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 09/087,277
; PRIOR FILING DATE: 1998-05-29
; PRIOR APPLICATION NUMBER: PCT/SE96/01558
; PRIOR FILING DATE: 1996-11-28
; PRIOR APPLICATION NUMBER: SE 9504272-7
; PRIOR FILING DATE: 1995-11-29
; PRIOR APPLICATION NUMBER: SE 9601506-0
; PRIOR FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 4
; LENGTH: 464
; TYPE: PRT
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: beII gene fragment (branching enz
US-09-658-499-4

Query Match 48.5%; Score 2204; DB 4; Length 464;
Best Local Similarity 84.0%; Pred. No. 5e-206;
Matches 389; Conservative 40; Mismatches 34; Indels 0; Gaps 0;

APPLICATION NUMBER: US/08/941.445A
FILING DATE: 30-SEP-1997
CLASSIFICATION: 800
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 60/026,855
FILING DATE: 30-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: Winner, Ellen P
REGISTRATION NUMBER: 28,547
REFERENCE/DOCKET NUMBER: 89-97
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 499-8080
TELEFAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
LENGTH: 822 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-941-445A-17

Query Match 46.7%; Score 2124; DB 3; Length 822;
Best Local Similarity 56.1%; Pred. No. 8.6e-198;
Matches 389; Conservative 112; Mismatches 167; Indels 26; Gaps 6;
Qy 146 IYDIPSLTGFROHLDYRYSQYKRLREIDKYEGSLDAFSGYKFGFSRSETGITVREW 205
Db 84 IYLDLPKLEIPKDHFRYRMKRFLEQKGSIEENEGSLESFSGYKFGINTNEDGTVVREW 143
Qy 206 APGATWAALIGDFNNWNPADVMTQNECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSG 265
Db 144 APAQAELIGDFNDWNGANHMEKDFGVWSIKI-DHVKGKPAIPHNSKVFRFLHGGV 202
Qy 266 NKDSIPAMIKESVQAPGEL--PYNGIYDDPEEEKYVFNKPOPKSLRIYESHVGMSS 323
Db 203 WDRIPALIRATVDASFGAPYDGVHWDPPASERYTFKHPRPSPKAPRIYEAHVGMSS 262
Qy 324 TEPVINTYANFRDDVLPRIKGLGVNAVQLMAIQHSEYYSASFGYHVTNPFYAASSRFGTPDD 383
Db 263 EKPAVSTYREADVNLPRIRANNYNTVQLMAVMEHSYYSASFGYHVTNPFVASSRSGTPED 322
Qy 384 LKSLIDKAHEGLGLVLMIDIVHSHASTNTLDGLNMPD---GTDGHYFHSRPGHMMWDSR 440
Db 323 LKYLVDKAHSLGLRLVMDVHSHASNNVTDLNGYDVQSTQESYFHAAGDRGYHKLWDSR 382
Qy 441 LFNYSWEVLRLFLSNARWMLDEYKDFGFRDGVTSMMYTHGLQVDFGTGNYNEFGYAT 500
Db 383 LFNYSANWEVLRLFLSNLRYLWDLDFMDFGFRDGVTSMLYHHHGINVGTGNYQYFSLDT 442
Qy 501 DVDAVYVLMMLNDMIHGLFPPEAVTIGEDVSGMPTVCIPVEDGGVGFYRLHMAVADKWVE 560
Db 443 AVDAVYVYMLANLHMKLLPEATVVAEDVSGMPVLCRPVDEGGVGFYRLAMALPDRWID 502
Qy 561 IIOKRDE-DWKMGDIIVHMLTNRRLWEKCVSAESHQDALVGDKTIAFLMDKMDYFMAL 619
Db 503 YLKNKDDSEWSMGEIAHTLTNRRTYKCIAYAESHDQSIIVGDKTIAFLMDKEMYTGMSD 562
Qy 620 DRPSTPLDRGVALHKMIRLITMGLGGEGYLNFMNGNEFGHPEDWDFPRGDLHLPSGKFPV 679
Db 563 LQPASPTIDRGIALQKMIHFTMALGGDGYLNFMNGNEFGHPEDWDFPR-----E 611
Qy 680 GNNYSYDKRRRFDLGNKHLRYHGMQEFDOAIQHLEAYGFWTSEHOYISRKDERDRII 739
Db 612 GNNYSYDKCRQWSLVDTHLRYKYMAAFQAMNALDERFSLSSKQIVSDMNDKEKVI 671
Qy 740 VFERGNLVFVFNFWHTSSYSDYRVGCLPKGKYKIVLSDDDLPGFGFGRSLSHAEHFSF-- 797
Db 672 VFERGDLVFNFNHFKPKTYEGYKVGCDLPKYRVALDSDALVFGHGRVGHVDHFTSPE 731
Qy 798 -----EGWYDNRPRSPFMYTPTCAVVALVED 825
Db 732 GVPGPETNFRNPNRSPFKVLSPPRTCAVYRVDE 765

RESULT 11
US-09-731-166-14
Sequence 14, Application US/09731166
Patent No. 6639126
GENERAL INFORMATION:
APPLICANT: Sewalt, Vincent J. H.
APPLICANT: Singletary, George W.
TITLE OF INVENTION: Production of Modified Polysaccarides
FILE REFERENCE: 35718/206348
CURRENT APPLICATION NUMBER: US/09/731,166
CURRENT FILING DATE: 2000-12-06
PRIOR APPLICATION NUMBER: 60/169,993
PRIOR FILING DATE: 1999-12-06
NUMBER OF SEQ ID NOS: 16
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 14
LENGTH: 822
TYPE: PRT
ORGANISM: Zea mays
US-09-731-166-14

Query Match 46.7%; Score 2124; DB 4; Length 822;
Best Local Similarity 56.1%; Pred. No. 8.6e-198;
Matches 389; Conservative 112; Mismatches 167; Indels 26; Gaps 6;
Qy 146 IYDIPSLTGFROHLDYRYSQYKRLREIDKYEGSLDAFSGYKFGFSRSETGITVREW 205
Db 84 IYLDLPKLEIPKDHFRYRMKRFLEQKGSIEENEGSLESFSGYKFGINTNEDGTVVREW 143
Qy 206 APGATWAALIGDFNNWNPADVMTQNECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSG 265
Db 144 APAQAELIGDFNDWNGANHMEKDFGVWSIKI-DHVKGKPAIPHNSKVFRFLHGGV 202
Qy 266 NKDSIPAMIKESVQAPGEL--PYNGIYDDPEEEKYVFNKPOPKSLRIYESHVGMSS 323
Db 203 WDRIPALIRATVDASFGAPYDGVHWDPPASERYTFKHPRPSPKAPRIYEAHVGMSS 262
Qy 324 TEPVINTYANFRDDVLPRIKGLGVNAVQLMAIQHSEYYSASFGYHVTNPFYAASSRFGTPDD 383
Db 263 EKPAVSTYREADVNLPRIRANNYNTVQLMAVMEHSYYSASFGYHVTNPFVASSRSGTPED 322
Qy 384 LKSLIDKAHEGLGLVLMIDIVHSHASTNTLDGLNMPD---GTDGHYFHSRPGHMMWDSR 440
Db 323 LKYLVDKAHSLGLRLVMDVHSHASNNVTDLNGYDVQSTQESYFHAAGDRGYHKLWDSR 382
Qy 441 LFNYSWEVLRLFLSNARWMLDEYKDFGFRDGVTSMMYTHGLQVDFGTGNYNEFGYAT 500
Db 383 LFNYSANWEVLRLFLSNLRYLWDLDFMDFGFRDGVTSMLYHHHGINVGTGNYQYFSLDT 442
Qy 501 DVDAVYVLMMLNDMIHGLFPPEAVTIGEDVSGMPTVCIPVEDGGVGFYRLHMAVADKWVE 560
Db 443 AVDAVYVYMLANLHMKLLPEATVVAEDVSGMPVLCRPVDEGGVGFYRLAMALPDRWID 502
Qy 561 IIOKRDE-DWKMGDIIVHMLTNRRLWEKCVSAESHQDALVGDKTIAFLMDKMDYFMAL 619
Db 503 YLKNKDDSEWSMGEIAHTLTNRRTYKCIAYAESHDQSIIVGDKTIAFLMDKEMYTGMSD 562
Qy 620 DRPSTPLDRGVALHKMIRLITMGLGGEGYLNFMNGNEFGHPEDWDFPRGDLHLPSGKFPV 679
Db 563 LQPASPTIDRGIALQKMIHFTMALGGDGYLNFMNGNEFGHPEDWDFPR-----E 611
Qy 680 GNNYSYDKRRRFDLGNKHLRYHGMQEFDOAIQHLEAYGFWTSEHOYISRKDERDRII 739
Db 612 GNNYSYDKCRQWSLVDTHLRYKYMAAFQAMNALDERFSLSSKQIVSDMNDKEKVI 671
Qy 740 VFERGNLVFVFNFWHTSSYSDYRVGCLPKGKYKIVLSDDDLPGFGFGRSLSHAEHFSF-- 797
Db 672 VFERGDLVFNFNHFKPKTYEGYKVGCDLPKYRVALDSDALVFGHGRVGHVDHFTSPE 731
Qy 798 -----EGWYDNRPRSPFMYTPTCAVVALVED 825
Db 732 GVPGPETNFRNPNRSPFKVLSPPRTCAVYRVDE 765

RESULT 12

US-08-104-158-2
; Sequence 2, Application US/08104158
; Patent No. 6215042
; GENERAL INFORMATION:
; APPLICANT: Willmitzer, Lothar
; APPLICANT: Sonnwald, Uwe
; APPLICANT: Rossmann, Jens
; APPLICANT: Mueller-Roeber, Bernd
; APPLICANT: Visser, Richard Gerardus Franciscus
; APPLICANT: Jacobsen, Evert
; TITLE OF INVENTION: PLASMIDS CONTAINING DNA-SEQUENCES THAT
; TITLE OF INVENTION: CAUSE CHANGES IN THE CARBOHYDRATE CONCENTRATION AND THE
; TITLE OF INVENTION: CARBOHYDRATE COMPOSITION IN PLANTS, AS WELL AS PLANT CELLS
; TITLE OF INVENTION: AND PLANTS CONTAINING THESE PLASMIDS
; NUMBER OF SEQUENCES: 2
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Oetrolenk, Faber, Gerb & Soffen
; STREET: 1180 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036-8403
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/104.158
; FILING DATE: 13-AUG-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: EP PCT/EP92/00302
; FILING DATE: 11-FEB-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: DE P 41 04 782.6
; FILING DATE: 13-FEB-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Meilman, Edward A.
; REGISTRATION NUMBER: 24,735
; REFERENCE/DOCKET NUMBER: EA-1996 PCT (951-91)
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-382-0700
; TELEFAX: 212-382-0888
; TELEX: 236925
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 566 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-104-158-2

Query Match 36.0%; Score 1635.5; DB 3; Length 566;
Best Local Similarity 52.2%; Pred. No. 2.1e-150;
Matches 316; Conservative 89; Mismatches 151; Indels 49; Gaps 9;
Qy 57 SSVNMTASKRVLDPGRICYSSTDDQLEAPGVTSSESVQLTDVESLIMDDKIVEDEVNK 116
Db 4 SWDISSTPKSRVKDERMK-HSSAI-----SAVLTD-----DMS 36
Qy 117 ESVPMRETVSIRKIGSKPRSPPPGRGRIYDIDPSLTGFRQHLDRYSQYKRLREEDK 176
Db 37 TMAPLEEDVNTENIG-----LLNLDPTLEPYLDHFRMKRYVDQKMLIEK 82
Qy 177 YEGSLDASRGYKGFSGRSETGITYREWAPGATWAALIGDFNNWPNADVMTQNECGVW 236
Db 83 YEGPLEEFAQGLYKFGFNREDGCIYREWAPAAQAEVIGDFNGRNGSNHMEKQDFGVW 142
Qy 237 EIFLPNNADGSPPIPHGSRVKIRMDTPSGN-KDSIPAWIKFSVOAPGEL--PYNGIYYDP 293
Db 143 SIRIP-DVDSKPVIPHNSRVKFRKXGNGVWVDRIPAWIKIATADATKFAAPYDGVWDP 201

Db 143 SIRIP-DVDSKPVIPHNSRVKFRKXGNGVWVDRIPAWIKIATADATKFAAPYDGVWDP 201
Qy 294 PEEKYVFKNPQPKRPKSLRIYESHVGMSTPEVINTYANFRDVLPRKCLGYNVQLM 353
Db 202 PPSERYHFYPRPKPRPRIYEAHVGMSSSEPRVNSYREFADVDLPRKANNYNTVQLM 261
Qy 354 AIOEHSYASFGYHVTNFYAASSRFGTDDDKSLIDKAHELGLLMDIVHSHASTNTLD 413
Db 262 AINEHSYSGFYHVTNFYAVSNRYGNPDLKYLIDKAHSLGLQVLVDVHSHASNNVT 321
Qy 414 GLNMFD---GTDGHPHSGRHHMMWDSRLFNYSWEVLFLLSNARWMLDRIYKDFGR 470
Db 322 GLNGFDIGQGSQSYFHAGERYGKLDWSRLFNANWEVLFLLSNRLMWLEENYDFGR 381
Qy 471 FDGVTSMYTHGLQVDFTCNRYEFGYATDVAVYLLMLNDMIHGLPEAVTIGEDVS 530
Db 382 FDGITSMLYVHGINMGFTCNRYEFGYATDVAVYLLMLANNLIHKIFPDATVIAEDVS 441
Qy 531 GMPETCIPVEDGGVGFDRHLMAVADKVEIIQ-KRDEOWKMGDIIVHMLTNRRWLEKCVS 589
Db 442 GMPGLSRPVSEGGIGFDYRLAWAIPDKWIDYLNKKNDEDSMKVETSSLNRYTEKCA 501
Qy 590 YAESHDQALVGDKTIAFWLMDKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGEGY 649
Db 502 YAESHDQSI VDKTIAFLMKNKEMYSMSCLTDASPVVDAGIALDKMIHFFHNGLRGV 561
Qy 650 LNFVG 654
Db 562 PQFHG 566

RESULT 13

US-09-609-040-2
; Sequence 2, Application US/09609040
; Patent No. 6570066
; GENERAL INFORMATION:
; APPLICANT: Willmitzer, et al.
; TITLE OF INVENTION: NUCLEOTIDE SEQUENCES ENCODING ENZYMES THAT ALTER THE CARBOHYDRATE
; FILE REFERENCE: 51413-3515.1
; CURRENT APPLICATION NUMBER: US/09/609,040
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: PCT/EP92/00302
; PRIOR FILING DATE: 1992-02-11
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 2
; LENGTH: 566
; TYPE: PRT
; ORGANISM: Solanum tuberosum
US-09-609-040-2

Query Match 36.0%; Score 1635.5; DB 4; Length 566;
Best Local Similarity 52.2%; Pred. No. 2.1e-150;
Matches 316; Conservative 89; Mismatches 151; Indels 49; Gaps 9;
Qy 57 SSVNMTASKRVLDPGRICYSSTDDQLEAPGVTSSESVQLTDVESLIMDDKIVEDEVNK 116
Db 4 SWDISSTPKSRVKDERMK-HSSAI-----SAVLTD-----DMS 36
Qy 117 ESVPMRETVSIRKIGSKPRSPPPGRGRIYDIDPSLTGFRQHLDRYSQYKRLREEDK 176
Db 37 TMAPLEEDVNTENIG-----LLNLDPTLEPYLDHFRMKRYVDQKMLIEK 82
Qy 177 YEGSLDASRGYKGFSGRSETGITYREWAPGATWAALIGDFNNWPNADVMTQNECGVW 236
Db 83 YEGPLEEFAQGLYKFGFNREDGCIYREWAPAAQAEVIGDFNGRNGSNHMEKQDFGVW 142
Qy 237 EIFLPNNADGSPPIPHGSRVKIRMDTPSGN-KDSIPAWIKFSVOAPGEL--PYNGIYYDP 293
Db 143 SIRIP-DVDSKPVIPHNSRVKFRKXGNGVWVDRIPAWIKIATADATKFAAPYDGVWDP 201

QY 294 PEEKYVFNPKPQKPKSLRIYESHVGMSTBPVINTYANFRDDVLPRIKKLYNAVQLM 353
DB 202 PPSRYHFKYPPPPKPRAPRIYEAHVGHSSSEPRVNSYREADDVLPRIKANNYNTVQLM 261
QY 354 ALOEHSYASFGYHTNFAASSRGTGDDDKSLDKAHEGLLVLMIDVHSHASTNTLD 413
DB 262 AIMEHSYSGFGYHTNFAVSNRYGNPEDLKYLIDKAHSLGLQLVLDVHSHASNNVTD 321
QY 414 GLNMFDD---GTDGHYFPHSGPRGHMMWDSRLFNFGSWELRLSNARWMLDEYKFDGFR 470
DB 322 GLNGEDICGSGSESPHAGERYHKLWDSRLFNANWEVLRLPSSNLRWMLSEYNFDGFR 381
QY 471 FDGVTSMYTHHGLQVDFGTNNEYGYATDVAVVYLLMLNDMIHGLPPEAVTIGEDVS 530
DB 382 FDGITSMLYVHHGINNGTGNNEYFSEATDVAVVYLLMLANNLHKIFPDATVIAEDVS 441
QY 531 GMPYTCIPVEDGCGVDFRLHMAVADKVEIIQ-KRDEDWKGMDIVHMLTWRMLEKCVS 589
DB 442 GMPGLSRPVSSEGGIGDFYRLAIPAIDKWDYLNKNDEDSWKEVTSSLTNRRYTEKCIA 501
QY 590 YAESHDQALVGDKTIAFWMKMDYDFMALDRPSTPLIDRGVALHMKIRLITMGLGGEGY 649
DB 502 YAESHDQSVIGDKTIAFLMKEMYSKMSCLTDSAPVVDAGIALDKMIHFHNGLGRGV 561
QY 650 LNFMG 654
DB 562 PQFHG 566

RESULT 14

US-09-579-365-2
; Sequence 2, Application US/09579365
; Patent No. 6566585
; GENERAL INFORMATION:
; APPLICANT: Martin QUANZ
; TITLE OF INVENTION: GENETICALLY MODIFIED PLANT CELLS; AND PLANTS WITH AN
; TITLE OF INVENTION: INCREASED ACTIVITY OF AN AMYLOSUCRASE PROTEIN AND A
; TITLE OF INVENTION: BRANCHING ENZYME
; FILE REFERENCE: 0147-0200P
; CURRENT APPLICATION NUMBER: US/09/579,365
; CURRENT FILING DATE: 2000-05-25
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 2
; LENGTH: 762
; TYPE: PRT
; ORGANISM: Neisseria denitrificans
US-09-579-365-2

Query Match 12.7%; Score 576; DB 4; Length 762;
Best Local Similarity 26.8%; Pred. No. 8.4e-47;
Matches 186; Conservative 108; Mismatches 223; Indels 178; Gaps 33;
QY 170 LREEIDKYEGS---LDAPSRG-----YKFGFSRSE---TGITYREWAPGATWAAL 214
DB 105 VREEDDYFGSALQHTDALLGEGTHLRPYETLGAHFAEMDGVSGVRFAVWAPNARRVSV 164
QY 215 IGDENNPNADVM---TONECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKSIP 271
DB 165 IGEFNGWDSRRHAMRPHGTGN---GLWDIFPG-----VGLN 197
QY 272 AWIKFSV-QAPCEL-----PY-----NGIYDPPBEKVFVNPKPQKPKS 311
DB 198 ALYKFSVLDAANGNREKADPAFAGELRPTASVVRGL---PAKAEAPAFRRANSVEAP 254
QY 312 LRIYESHVGMSTSTEPVIN---TYANFRDDVLPRIKKLYNAVQLMAIOEHSYASFGYHV 368
DB 255 ISIYEVHLSWRNPNENNYWLTYYTQLADELVNKKMDGFTHELLPLSEYFDFGSGWQA 314
QY 369 TNFAASSRGTGDDDKSLDKAHEGLLVLMIDVHSHASTNTLDGLNMFPGTGDGHYFHS 428
DB 315 TGLYAPTSRFGSPDELKALIDAAHAAGISVLDMWVAGHFPTDD-HGLNTFDGT-ALYEAH 372

QY 429 GPR-GHHMMWDSRLFNFGSWELRLSNARWMLDEYKFDGFRPDGVTSMYTHHGLQVD 487
DB 373 DPREGYHODWNTLIYNGRNEVKNFLOGNALLYWIERFGDGIRYDVAASMIYRYSRK-- 430
QY 488 FTGNY--NEVFGYATDVAVVYLLMLNDMIHGLPPEAVTIGEDVSGMPTVCIPVEDGGVG 545
DB 431 -DGEWIPNRY-GGSENLEAIAFLRQTNAVLSKETPGAGSFAEESTSFADV---TREAGLN 485
QY 546 PDYELHMAVADKVEIIQKREDWKGMDIVHMLTN--RRWLEKCVSAE-----SHDOA 597
DB 486 PDFKXNMGWMDTURYMQE-----DPVHRKTHGKMTFGMMYQYSENFLPLSHDEV 537
QY 598 LVGDKTTIA-----FWLMDKDM---YDFMALDRPSTPLIDRGVALHMKIRLITMGLGGEG 648
DB 538 VHGRSLLGKMPGDCWQGFANLRAIYGF-----YGFPGKK 573
QY 649 YLNFPMGNEFGH-PWIDFPRG-DLHLPSPGKFPVPGNNYSYDKRRRPFGLGNSKHURYHGMQ 706
DB 574 LL-FMGNEFAQGREW-NYQEGLDWHL-----LDEAGGWH---KGIVQ 609
QY 707 EFDQAIQHLSEAY-----GFWTSEHOYISRKDERDRIIVFER---GNLVFVFN 751
DB 610 DIVRDLNHIYTAHAPYQLDQQPEGF-----EMLVADSDNSVFPFERRDRAGNRIIVIS 664
QY 752 FHWTSYSDYRVGCLKPKYKIVLSDDDPLFGGFG 786
DB 665 NFTPVREHYRFGVNAFGRYTEILNSDRTQYQSGG 699

RESULT 15

US-09-537-120-2
; Sequence 2, Application US/09537120
; Patent No. 6608018
; GENERAL INFORMATION:
; APPLICANT: No. 6608018ozymes A/S
; APPLICANT: Shinohara, Mari L.
; TITLE OF INVENTION: Polypeptides having branching enzyme activity and nucleic acids en
; TITLE OF INVENTION: same
; FILE REFERENCE: 5860.200-US
; CURRENT APPLICATION NUMBER: US/09/537,120
; CURRENT FILING DATE: 2001-08-17
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: Patent In version 3.1
; SEQ ID NO 2
; LENGTH: 621
; TYPE: PRT
; ORGANISM: Rhodothermus obamensis
US-09-537-120-2

Query Match 12.5%; Score 570; DB 4; Length 621;
Best Local Similarity 25.9%; Pred. No. 2.3e-46;
Matches 187; Conservative 115; Mismatches 257; Indels 162; Gaps 29;
QY 172 EEIDKYEGSLDAPSRGKFGFSRSETGITYREWAPGATWAALIGDNNNNPNADVMTQN 231
DB 7 EDIIRWESG--TFVDSYRKLGAHPDDEGTWCFWAPHADGVSVLGAFNDFNPEANPLERY 64
QY 232 ECGWEIFLPNNADGSPPIPHGSRVKIRMDTPSGNKSIPAWIKFSVQAPGELPYNGI-- 289
DB 65 GGLWAGYVPGARPG-----HTYKIRIRHGIFYQADKTDPIA---FAMEPTGSPIEGLAS 116
QY 290 -----YDPPPEEKYVFNPKPQKPKSL-----RIYESHVGMSTSTEPVIN-TYANFR 335
DB 117 IITRLDYTWID-----DEWMRRR---KGPASLYEPVSVIYEVHLSWRHKKRCESESFYREIA 169
QY 336 DDVLPRIKKLYNAVQLMAIOEHSYASFGYHYTNFYAASRFGTDPDLKSLDKAHEGL 395
DB 170 EPLADYVQEMGFTHVELLPVMEHPYYSWGCVVGVYVAPTFRYSGPDLMTYLDLHQRG 229
QY 396 LLVLMIDIVHSHASTNTLDGLNMFPGTGDGHYFHSGRGHMMWDSRLFNFGSWELRLS 455
DB 230 IGVILDMVPSHFAADP-QGLVFFDGTTLFEYDDPKRYHPDWGTYVFDYKPKGVNRNFLIS 288

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: July 16, 2004, 19:45:05 ; Search time 1584 Seconds
(without alignments)
7970.882 Million cell updates/sec

Title: US-09-297-703C-28
Perfect score: 2588
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Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 3190992 seqs, 2439311697 residues

Total number of hits satisfying chosen parameters: 6381984

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : Published Applications NA:
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19: /cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1466	56.6	5164	13 US-10-424-599-130849	Sequence 130849,
2	1392.4	53.8	2418	9 US-09-938-842A-872	Sequence 872, App
3	1392.4	53.8	2418	11 US-09-938-842A-872	Sequence 872, App
4	1382.4	53.4	3074	15 US-10-254-534-1	Sequence 1, Appli
5	1381.8	53.4	2563	13 US-10-239-145-1	Sequence 1, Appli
6	1381.2	53.4	2578	15 US-10-056-454A-19	Sequence 19, Appl
7	1380	53.3	2529	15 US-10-056-454A-17	Sequence 17, Appl
8	1377.8	53.2	3231	15 US-10-056-454A-18	Sequence 18, Appl
9	1370.4	53.0	2576	15 US-10-056-454A-16	Sequence 16, Appl
10	1364	52.7	3033	15 US-10-056-454A-14	Sequence 14, Appl
11	1360.4	52.6	2577	9 US-09-938-842A-337	Sequence 337, App
12	1360.4	52.6	2577	11 US-09-938-842A-337	Sequence 337, App
13	1357.8	52.5	3003	15 US-10-056-454A-12	Sequence 12, Appl
14	1341.2	51.8	2975	15 US-10-056-454A-13	Sequence 13, Appl

15	1307.6	50.5	3119	17 US-10-437-963-11896	Sequence 11896, A
16	1292.6	49.9	3288	17 US-10-437-963-51674	Sequence 51674, A
17	1251.8	48.4	2640	13 US-10-336-753-55	Sequence 55, Appl
18	1250	48.3	2554	13 US-10-434-893A-1	Sequence 1, Appli
19	1230.2	47.5	2559	9 US-09-792-127-1	Sequence 1, Appli
20	1230.2	47.5	3039	9 US-09-792-127-3	Sequence 3, Appli
21	1215.8	47.0	2780	13 US-10-434-893A-2	Sequence 2, Appli
22	947.4	36.6	1393	15 US-10-254-534-3	Sequence 3, Appli
23	938.6	36.3	1642	16 US-10-260-238-1027	Sequence 1027, Ap
24	840.4	32.5	1867	13 US-10-425-114-8329	Sequence 8329, Ap
25	633.4	24.5	2763	13 US-10-336-753-57	Sequence 57, Appl
26	613	23.7	3036	17 US-10-437-963-67863	Sequence 67863, A
27	594.8	23.0	2913	13 US-10-235-192A-36	Sequence 36, Appl
28	594.8	23.0	2913	13 US-10-342-887-442	Sequence 442, App
29	594.8	23.0	2913	13 US-10-172-118-442	Sequence 442, App
30	594.8	23.0	2955	9 US-09-880-107-2148	Sequence 2148, Ap
31	594.8	23.0	2955	10 US-09-918-624B-30	Sequence 30, Appl
32	594.8	23.0	2994	15 US-10-084-817-92	Sequence 92, Appl
33	594.8	23.0	3075	15 US-10-240-965-135	Sequence 135, App
34	586.8	22.7	2324	13 US-10-425-114-32172	Sequence 32172, A
35	570.8	22.1	1255	15 US-10-171-008-3	Sequence 3, Appli
36	516.2	19.9	2958	13 US-10-262-511-107	Sequence 107, App
37	509	19.7	1641	15 US-10-171-008-7	Sequence 7, Appli
38	503.2	19.4	2443	16 US-10-397-954A-1	Sequence 1, Appli
39	493.4	19.1	3753	13 US-10-239-145-6	Sequence 6, Appli
40	460.4	17.8	1267	16 US-10-260-238-3480	Sequence 3480, Ap
41	409.6	15.8	2115	16 US-10-369-493-25407	Sequence 25407, A
42	403.2	15.6	1119	16 US-10-260-238-3410	Sequence 3410, Ap
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44	374.6	14.5	1941	16 US-10-369-493-33970	Sequence 33970, A
45	370.4	14.3	636	16 US-10-260-238-5563	Sequence 5563, Ap

ALIGNMENTS

RESULT 1
US-10-424-599-130849
; Sequence 130849, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa Thomas J
; APPLICANT: Kovalic David K
; APPLICANT: Zhou Yihua
; APPLICANT: Cao Yongwei
; TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53223)B
; CURRENT APPLICATION NUMBER: US/10/424,599
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF SEQ ID NOS: 285684
; SEQ ID NO 130849
; LENGTH: 5164
; TYPE: DNA
; ORGANISM: Glycine max
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT3847_89164C.1
US-10-424-599-130849

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Qy	407	AATTGGATCTAAACCAAGGTCCATCTCTCCACCGGAGAGGGCAAGAAATATATGACAT	466				
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Db 1128 CAGGAATGAATTTGGTGTGTGGAGACTTCTTGCCAAACAATGGGATGGTTTCAACCACC 1187
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Qy 1547 GCTGTTGAATGATATGATTCATGTTCTTCCAGAGGCTGTCAACATTTGGTGAAGATGT 1606
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RESULT 2

US-09-938-842A-872

; Sequence 872, Application US/09938842A

; Patent No. US20020160378A1

; GENERAL INFORMATION:

; APPLICANT: Harper, Jeff

; APPLICANT: Kreps, Joel

; APPLICANT: Wang, Xun

; APPLICANT: Zhu, Tong

; TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING

; TITLE OF INVENTION: SAME, AND METHODS OF USE

; FILE REFERENCE: SRIPI300-3									
; CURRENT APPLICATION NUMBER: US/09/938,842A									
; PRIOR FILING DATE: 2001-08-24									
; PRIOR APPLICATION NUMBER: US 60/227,866									
; PRIOR FILING DATE: 2000-08-24									
; PRIOR APPLICATION NUMBER: US 60/264,647									
; PRIOR FILING DATE: 2001-01-16									
; PRIOR APPLICATION NUMBER: US 60/300,111									
; PRIOR FILING DATE: 2001-06-22									
; NUMBER OF SEQ ID NOS: 5379									
; SEQ ID NO 872									
; LENGTH: 2418									
; TYPE: DNA									
; ORGANISM: Arabidopsis thaliana									
US-09-938-842A-872									
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Best Local Similarity 79.0%; Pred. No. 0;									
Matches 1657; Conservative 0; Mismatches 441; Indels 0; Gaps 0;									
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DB	437	ATAAAGAGATTGCGTGAGGAAATAGACAAGATATGAGGTGGTCTTGAGGCATCTCTCGTG	496						
QY	580	GCTATGAAAGTTTGGTTCTCACCCAGTGAACAGGAATAACTTATAGAGAGTGGGCAC	639						
DB	497	GCTATGAAAGTTTGGTTCTCACCCAGTGAACAGGAATAACTTATAGAGAGTGGGCAC	556						
QY	640	CAGAGCTACGTGGGCTGCATTGATTGGAGATTTCATTAACCTGGAATCCTTAATGCAGATG	699						
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QY	820	AAGATTCTATTCTCTGTTGGATCAAGTTCTCAGATTCAAGCAACGAGTGAACTCCCATATA	879						
DB	737	AAGACTCAATTCCTGTTGGATCAAGTTCTCGGTGCAAGCTCCAGTGGAATCCCATCA	796						
QY	880	ATGGCATATATCATGATCTCCGAGGAGGAGATGATGTTTCAAAAATCCTCAGCCAA	939						
DB	797	ATGGCATATATCATGATCTCCGAGGAGGAGATGATGTTTCAAAAATCCTCAGCCAA	856						
QY	940	AGAGACCAAAATCACTTCGGATTTATGATCGCAGTTGGATGATGATGATGATGATGATGAT	999						
DB	857	AGAGACCTTAAGTCGTTAAGGATTTTATGAAGACACATGTTGGATGATGATGATGATGAT	916						
QY	1000	TAAATTAACACATATGCCAACTTTAGAGATGATGATGATGATGATGATGATGATGATGAT	1059						
DB	917	TGGTCAATACGTATGCTAACTTTAGAGATGATGATGATGATGATGATGATGATGATGAT	976						
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QY	1900	TAGATCGTGGAGTAGCATTCGCAAAAATGATCAGGCTTTATTAATCGGATTAAGCGGAG	1959						
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QY	1960	AAGATATTTGAATTTTATGGGAATGAAATTTGGACACCCGAGTGGATTTGATTTTCCAA	2019						
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QY	2020	GAGTGATCTACATCTTCCAGTGGTAAATTTGTTCTCGGGAACAAATACAGTTTATGATA	2079						
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QY	2080	AATGCCGCGTAGGTTTGTATCTAGGCAATTCAGAGCATCTGAGATATCATGGAAATGCAAG	2139						
DB	1997	AATGCCGCGCAGATTTGATCTTGGGGATGCGAATTTATCTCAGATACCGCGGACTACAAG	2056						
QY	2140	AGTTTGTATCAAGCAATTCAGCATCTGCAAGCGCTATGTTTCACTGCTCTGAGGACC	2199						
DB	2057	AATTTGTATCAGGCAATGCAACATCTTGAAGAGAAATTTACGGTTTTTATGACTTCGAGGACC	2116						
QY	2200	AATACATATCAAGGAGATGAAGGATCGGATTCATGCTTCTCGAGGAGGAAACCTCG	2259						
DB	2117	AATTCATATCAAGAAAGACGAGCAGATAGATTAATCGTATTCGAAAGAGGTGATCTCG	2176						
QY	2260	TTTTTGTATTCAAATTTTTCATTTGAGTACGAGCTATTCGGATTTACCGAGTTGGCTGCTTAA	2319						

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Db 2237 AGCCTGGAAATATAAGATCGTATTGGACTCGGACGATCCTCTCTTTGGTGGATTCAATA 2296
Qy 2380 GGCTTAGTTCATGATGACAGACACTTCACGTTTGAAGGGTGTACGATAACCGGCTCGAT 2439
Db 2297 GGCTCGATCGAAGCAGAGTACTTCACTTATGATGGCTTATACGACGAACGACCTGCT 2356
Qy 2440 CTTTCATGGTGTACACACCATGTAGAACAGCAGTGGTCTATGCTTTAGTGAGGATGA 2497
Db 2357 CTTTCATGGTCTATGACCGGTGTAGAACCGCGGTGTTTATGCTTTAGCAAAACACGA 2414

RESULT 3
US-09-938-842A-872
; Sequence 872, Application US/09938842A
; Publication No. US20040009476A9
; GENERAL INFORMATION:
; APPLICANT: Harper, Jeff
; APPLICANT: Kreps, Joel
; APPLICANT: Wang, Xun
; APPLICANT: Zhu, Tong
; TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
; FILE REFERENCE: SCRIPI300-3
; CURRENT APPLICATION NUMBER: US/09/938,842A
; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: US 60/227,866
; PRIOR FILING DATE: 2000-08-24
; PRIOR APPLICATION NUMBER: US 60/264,647
; PRIOR FILING DATE: 2001-01-16
; PRIOR APPLICATION NUMBER: US 60/300,111
; PRIOR FILING DATE: 2001-06-22
; NUMBER OF SEQ ID NOS: 5379
; SEQ ID NO 872
; LENGTH: 2418
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-938-842A-872

Query Match 53.8%; Score 1392.4; DB 11; Length 2418;
Best Local Similarity 79.0%; Pred. No. 0;
Matches 1657; Conservative 0; Mismatches 441; Indels 0; Gaps 0;

Qy 400 TCAGAAAATTTGGATCTAAACCAAGGTCCATTCCTCCACCCGCGCAGAGGGCAAGATAT 459
Db 317 TCAAGGAGAGGGGTGAAACCAAGATAGTTCCCCCAACCGGGTGATGGCAAGAAAATTT 376
Qy 460 ATGACATAGATCCAGCTTGACAGGCTTTCGTCACACCTAGATTACCGGTATTACAGT 519
Db 377 ATGAGATAGACCCCATGTTAGCACTTACAACTTATACCAATCATCTTGTATTACCGTTATGACAGT 436
Qy 520 ACAAAAGACTCCGAGAAGAAATTCACAAAGTATGAAGGTAGTCTGGATGCAATTTCTCGTG 579
Db 437 ATAAAGATTGCGTGAGGAAATAGACAAAGTATGAGGGTGGTCTTGAGGCAATCTCTCGTG 496
Qy 580 GCTATGAAAAGTTGGTTTCTCACGCGAGTAAACAGGAATTAATTTATAGAGAGTGGGCAC 639
Db 497 GCTATGAAAAGTTAGGATTTTTCGCGCAGTGTATGCGGTATTAACCTTATAGAGAGTGGGCGC 556
Qy 640 CAGGAGCTACGTGGGCTCATTTGATGGAGATTTCATAACTGGAACTCTTAATSCAGATG 699
Db 557 CTGGAGCTTAAGGCTGCATCTTATCGGAGATTTCACAACTTGGAAATCTTAATGAGATA 616
Qy 700 TCATGACTCAGAATCAGTGTGTTGTTGCGGAGATCTTTTTCGCGCAATTAATGCAATGGTT 759
Db 617 TCATGACTCGGAATGAATTTGTTGTTGGGAGATCTTTTTCGCGCAACCAACTGATGTT 676
Qy 760 CACCAACCAATTTCCCATGGTCTTCAGTAAAGATACCGATGATCTCATCTCGCAACA 819
Db 677 CGCCTGCAATTTCTCATGGCTCACGTGTAAAGATTCTGATGGATACTCCATCTGGCATTA 736

Qy 820 AAGATTCATATTCTGCTTGGATCAAGTTCTCAGTTCAGGACCAAGGTGAACCTCCCATATA 879
Db 737 AAGACTCAATTCCTGCTTGGATCAAGTTCTCGGTGCAAGCTCCAGGTGAATCCCATTC 796
Qy 880 ATGGCATATATCTATGATCTCCCGAGAGGAGAGTATGTGTTCAAAAATCTCTCAGCAA 939
Db 797 ATGGCATATATCTATGATCTCCAGAGAGGAGAGTATGTATTTCAAAACATCTCTCAACAA 856
Qy 940 AGAGACCAAAATCACCTTCGGATTTATGAGTCGACGCTTGAATGAGTAGTACGGAGCCAG 999
Db 857 AGAGACCTTAAGTTCGCTTAAGGATTTATGAAGCACAATGTGGCATGAGTAGCAGCAACAA 916
Qy 1000 TAATTAACACATATGCCAACTTTTAGAGATGATGTCTCTCGCATCAAAAAGCTTCGGCT 1059
Db 917 TGGTCAATACGTATGCTAACTTTTAGAGATGATGTCTTCCCGCATCAAAAAGCTTGGAT 976
Qy 1060 ACAATGCTGTTTCAGCTCATGGCTATTCAAGAGCATTCATATATGCTAGTATTTGGGTATC 1119
Db 977 ATAAATGCTGTTCAAAATTTATGGCCATACAAAGAACATTCATATATGCCAGCTTTGGGTACC 1036
Qy 1120 ACGTCAAAACTTTTATGAGCTTAGCAGCTAGCAGCCGATTTGGAACCTCTGATGATTTAAAGTCTC 1179
Db 1037 ATGTCAAAACTTTTTCGCCCCAAGCAGTCTGCTGGGACCCAGAGAGAACTAAATATCAC 1096
Qy 1180 TAATAGATAAAGCTCACGAGTTAGGTCTTCTGTTCTCATGGATATTTGTTCATAGCCATG 1239
Db 1097 TGATAGATAGCTCACGAGTTAGGCTTGGTAGTCTCTGATGGATATGCTTTCATAGCCATG 1156
Qy 1240 CATCAACATAATACGTTGGATGGCTGAATATGTTTGAATGATGCGATGCTCATCTTTC 1299
Db 1157 CTTCAAAAACACATTTGGATGGACTGAAACATGTTTGAATGAACTGCTCACTATTTTC 1216
Qy 1300 ACTCTGACCAACCGGGTCACTATTGGATGTTGGGACTCTCGCTTTTCAACTATGTTGGAGCT 1359
Db 1217 ACTCTGACCTCGGGGATACCATTTGGATGTTGGGATTCACGACTTTTCAATTTATGGAGCT 1276
Qy 1360 GGGAGGTTCTAAGGTTTCTTTTCAAAATCAAGGTGGTGGTTGGATGAGTACAAAGTTTG 1419
Db 1277 GGGAGGTTATACGATATCTCTTTTCAAAATGACCGTGGTGGCTAGAGAAATACAAAGTTG 1336
Qy 1420 ATGGGTTTCAGATTGATGGGGTGAATCAATGATGTACACCCATCATGGATGAGATTGAGTAG 1479
Db 1337 ATGGATTTAGATTGATGGGTGTAACCTCAATGATGTATCTCATCATGAGGACTCTCGGTTG 1396
Qy 1480 ATTTTACCGCAACTCAAAATGATCTTTGATATGCAACTGATGATGATGCTGTGTTT 1539
Db 1397 GATTTACTGGGAATACACCGAATACCTTTGGATTTGGAATGATGATGATGCTGTGATTT 1456
Qy 1540 ATTTGATGCTGTTGAATGATATGATTCATGCTCTCTTTCCAGAGGCTGTCAACCATTCGTTG 1599
Db 1457 ATCTCATGCTGGTTAATGATATGATTCATGCGCTCTACCTGAAAGCATTTACCGTTGGTG 1516
Qy 1600 AAGATTTAGTGAATGCCAAAGTTTGCATTCGGTTGAAGATGCTGGTGTGTTGGCTTTG 1659
Db 1517 AAGATTTAGTGGTATGCCAACTCTGTATTTCTGTCTCAAGATGTTGGGCTTGGATTTG 1576
Qy 1660 ATTATCGTCTCCACATGCTGTTGCTGATAAATGGGTTGAGATTTATTTCAGAAAGAGATG 1719
Db 1577 ACTACCGTTTACATAGCCCATAGCTAATAGTGGATAGAAATGCTCAAGAGAGAGATG 1636
Qy 1720 AAGATTTGGAATTTGGTGAATTTGTATATATGCTGACCAACAGCGGCTGGTTGGAAAGT 1779
Db 1637 AAGACTGGCAAAATGGGCGACATCATTTTACACACTTACCAACAGAGGTTGGTTCAGAGAGT 1696
Qy 1780 GTGTTTCTTATGCTGAAAGTCAAGCAGGCTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT 1839
Db 1697 GTATCTCTTATGCTGAAAGTCAAGATCAAGCTCTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTT 1756
Qy 1840 GGCTGATGGCAAGGATATGATGATGCTTCAATGGCTCTTGAACAGACCTACTACTCTCTCA 1899
Db 1757 GGTAAATGGCAAGGATATGATGATGATTTTCAATGGCAGTAGACAGACCACTCACTCTCTTA 1816

Qy	1900	TAGATCGTGGAGTAGCATTCGACAAAATGATCAGCGCTTATTACATCGGATATTAGCCGGAG	1959
Db	1817	TCGATAGAGGAAATAGCTTTGACAAAAATGATTAGGCTTATAACTATTCGGGATATTAGCCGGTG	1876
Qy	1960	AAGGATATTTCGAAATTTTATGCGAAATCGAATTTTGACACCCCGAGTCGATGATTGATTTTCCAA	2019
Db	1877	AAGGTTACTTAAATTTTATGCGAAAACGAAATTCGGACATCCGAAATGGAATGATTTTCCCA	1936
Qy	2020	GAGGTGATCTACATCTTCCCAGTGGTAAATTTGTTTCTCTGGGAAACAAATTCAGTTTATGATA	2079
Db	1937	GAGCGGAGCAGCGCTTCTTCATGATGATAGCGTGATTCCTGGCAACAAATTCAGTTTATGACA	1996
Qy	2080	AATCCCGCGTAGTGTTCATCTAGGCAAAATTCAAAGCATCTGAGATATCATGGAATGCAAG	2139
Db	1997	AATCCCGCGCAGATTTTGATCTTGGGATGAGATTTATCTCAGATACCGCGGACATCAAG	2056
Qy	2140	AGTTTGATCAAGCAATTCAGCATCTTCAAGAAGCCTATGGTTTTCATGACTTCTGAGGACC	2199
Db	2057	AATTTGATCAGGCAATCGCAATCTTGAAGAAATTAGCGTTTTATGACTTCGGAGCACC	2116
Qy	2200	AATACATATCA CGGAAGGATGAAAGGGATCGGATCATTTGTTCTCGAGAGGGGAAACCTCG	2259
Db	2117	AATTCATATCAGAAAAGACGACGATAGAGTAAATCGTATTTCGAAAGAGGTGATCTCG	2176
Qy	2260	TTTTTGTAATTCAAATTTTCATTGGAAGTACGAGCTAATTCGGAATACCGAGTTGGCTGCTTAA	2319
Db	2177	TCATTTGCTTTAACTTTTCACTGGACACGACGACTACTTTGATTACCGCAATGGTTGCTCCA	2236
Qy	2320	AGCCAGGAAGTACAAGATAGTCTTGGATTCAGATGATCCTTTGTTTTTGGAGGCTTTGGCA	2379
Db	2237	AGCCTGGAAAATATAAGATCGATTATGAGCTCGGACGATCCTCTCTTTTGGTGGATTCAAATA	2296
Qy	2380	GGCTTTAGTCATGATGCAGAGCACTTCAGCTTTTGAAGGCTGGTAGATAAACCGGCTCCGAT	2439
Db	2297	GGCTCGATCGCAAGCGCAGATCACTTCATATGATGGCTTATACGACGAACGACCTTGCT	2356
Qy	2440	CCTTCATGGGTACACACCAATGTAGAAACAGCAGTGGTCTATGCTTTTAGTGGAGGATCA	2497
Db	2357	CCTTCATGGTCTATGCAACCGGTAGAACCGCGGTGTTATGCTTTTAGCAAAACCAACA	2414

RESULT 4

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US-10-254-534-1
; Sequence 1, Application US/10254534
; Publication No. US20030046730A1
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/10/254,534
; CURRENT FILING DATE: 2002-09-26
; PRIOR APPLICATION NUMBER: US/09/087,277
; PRIOR FILING DATE: 1998-05-29
; PRIOR APPLICATION NUMBER: PCT/SE96/01558
; PRIOR FILING DATE: 1996-11-28
; PRIOR APPLICATION NUMBER: SE 9504272-7
; PRIOR FILING DATE: 1995-11-29
; PRIOR APPLICATION NUMBER: SE 9601506-0
; PRIOR FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 3074
; TYPE: DNA
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: bell gene
; OTHER INFORMATION: (branching enzyme ii) from Solanum tuberosum
; OTHER INFORMATION: (potato)

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Qy	827	TATTCTCGTCTGGATCAAGTTCTCAGTTCAAGCACGAGTGAACTCCCATATTAATGGCAT	886
Db	1097	CATTCTCGTCTGGATCAACTACTCTTTACAGCTTCCTGTAGAAATTCATATTAATGGAAT	1156
Qy	887	ATACTATGATCTCTCCGAGGAGAGAAAGTATGTGTCCAAAATTCCTCAGGCCAAGAGACC	946
Db	1157	ATATTAATGATCCACCCGAAAGAGAGAGTATATCTTCCAAACCCACGGCCAAAGAAACC	1216
Qy	947	AAAATCACTTCGGATTTATGAGTCGCAGCTTGGAAATGAGTAGTACGAGCGCAGTAATTA	1006
Db	1217	AAAGTCCTCAGAAATATATGAAATCTCATATTGAAATGAGTAGTCCGGAGCCTAAATTTAA	1276
Qy	1007	CACATATGCCAACTTTTAGAGATGATGTGCTTCCTCGCATCAAAAAGCTTGGCTACAATGC	1066
Db	1277	CTCATACGTGAATTTTAGAGATGAAGTTCTTCCTCGCATAAAAAGCTTGGGTACAATGC	1336
Qy	1067	TGTTCACTCATATGGCTATTCAAGAGCATTCATATTATGCTAGTATTTGGGTATCACGTCA	1126
Db	1337	GGTGCAAAATTAATGGCTATTCAAGAGCATTCCTTAATATGCTAGTATTTGGTTATCATGTCA	1396
Qy	1127	AAACTTTTATGACGTAGCAGCGAATTTGAACTCCTGTAGTATTAAGTCTCTAATAGA	1186
Db	1397	AAATTTTTTNGCACCAGCAGCCGTTTTGGAAACGCCGACGACTTAAGTCTTTGATTGA	1456
Qy	1187	TAAAGCTCACGAGTTAGTCTCTCTGTGTTCTCATGGATATTTGTTTCATAGCCATGCATCA	1246
Db	1457	TAAAGCTCATGAGCTAGGAAATTTGTTGTTCTCATGGACATTTGTTTCAGAGCATGCATCA	1516
Qy	1247	TAATACGTTGGATGGGCTGAAATATGTTTGTATGTTGATGCGATGGTCACTACTTTCACTCT	1306
Db	1517	TAATACTTTTATGATGGACTGAACATGTTTGTAGCGCACAGATAGTGTGTACTTTTCACTCT	1576
Qy	1307	ACCACGGGTCATCATTTGCGATGTGGGACTCTCGCTTTTCAAATATGGGAGCTGGGAGGT	1366
Db	1577	AGCTCGTGGTTATCATTTGGAATGGGATTTCCGCGCTCTTTAACTATGGAACTGGGAGGT	1636
Qy	1367	TCTAAGGTTTCTTCTTTCAAATGCAAGGTGGTGGTTGGATGAGTACAAGTTTCATGGGTT	1426
Db	1637	ACTTAGGTATCTTCTCTCAAATGCGAGATGGTGGTTGGATGAGTTCAAAATTTTCATGGAT	1696
Qy	1427	CAGATTTTATGGGGTGACTTCAATGATGTACCCCATCATGGATGCGAGTTGAGTTTAT	1486
Db	1697	TAGATTTTATGGTGTGACATCAATGATGTATATCTACCCAGGATATTCGGTGGGATTCAC	1756
Qy	1487	CGGCAACTCAAAATACTTTTGGATATGCAACTGATGTAGATCTGTGTGTTTATTGTAT	1546
Db	1757	TGGGAACCTACGAGGAATACTTTGGACTCGCAACTGATGTGATGCTGTTCTGTATCTGAT	1816
Qy	1547	GCTGTTGAAATGATATGATTCATGCTCTTCCAGAGGCTGTCAACATTGGTGAAGATGT	1606
Db	1817	GCTGGTCAACGATCTTATTCATGGGCTTTTCCACAGATGCAATTACCATTGGTGAAGATGT	1876
Qy	1607	TAGTGGAAATGCCAACAGTTTTCATTTCCGTTTGAAGATGGTGGTGTGGCTTTTCATTATCG	1666
Db	1877	TAGCGGAATGCCGACATTTTATTTCCGTTCAAGATGGGGGTGTGGCTTTGCTATATCG	1936
Qy	1667	TCTCCACATGGCTGTCTGATAAATGGGTTGAGATTTATTCAGAAGAGAGATCAAGATTG	1726
Db	1937	GCTGCATATGGCAATTCGTGATTAATGGAATGAGTTGCTCTCAAGAAACGGGATGAGATTG	1996
Qy	1727	GAAATGGGTGACATTTGATCATATGCTGACCAACAGCGGTGGTTGGAAAAGTGTGTTTC	1786
Db	1997	GAGAGTGGGTGATATGTTTCATACACTGACCAATAGAAAGATGGTCGGAAGAAGTGTGTTTC	2056
Qy	1787	TTATGCTGAAAGTCAACACAGGCCCTTGTGTGTGACAAAACCTATTTCATTTTGGCTGAT	1846
Db	2057	ATACGCTGAAAGTCATGATCAAGCTCTAGTCGGTGTAAAACTATAGCATTTCTGGCTGAT	2116
Qy	1847	GGACAAGATATGATGACTTTCATGGCTCTTGTGACAGACCAATCTACTCTCTCATAGATCG	1906
Db	2117	GGAAAGGATATGATGATTTTATGGCTCTGGAATAGACCCNTCAACATCAATTAATAGATCG	2176

QY	1907	TGGAGTAGCATTCGACAAAATGATCAGGCTTTATTCATCGGATTAGCCGGAGNAGGATA	1961
DB	2177	TGGGATAGCATTTGCACAAGATGATTAGGCTTTGAACCTATCGGATTAGGAGGAGNAGGGTA	2236
QY	1967	TTTTCGAAATTTTATGGGAATCGAATTTGGGACACCCGAGTCGATTTGATTTTCCAGAGAGTGTA	2026
DB	2237	CCTTAATTTTCATGGGAATGAAATTCGGCCACCTCGTAGTGGATTTGATTTCCCTAGGCGTGA	2296
QY	2027	TCTACATCTTTCCGAGTGGTAAATTTGTTCCTGGGAACAATTCACGTTTATGATAAATGCCG	2086
DB	2297	ACAACACCTCTCTGATGGCTCAGTAAATTCOCGGAAACCAATTCAGTTTATGATAAATCGAG	2356
QY	2087	GCGTAGGTTTGATCTAGGCAATTCGAAGCATCTGAGATATCATGGAAATCAAGAGTTTGA	2146
DB	2357	ACGAGATTTTTCACCTGGGAGATCGAGAATATTTAAGATACCGTGGGTTGCAAGAAATTTGA	2416
QY	2147	TCAAGCAATTCAGCATCTCTGAAGAAGCCTATGGTTTCATGACCTTCTGAGCACAACCAATACAT	2206
DB	2417	CCGGGCTATGGAGTATCTTGAAGATAAATATGAGTTTATGACTTTCAGAACACCCAGTTTCAT	2476
QY	2207	ATCACGGAAGATGAAAGGATCGGATCATTTGTCTTCGAGAGGGGAAACCTCGTTTTTGT	2266
DB	2477	ATCACGAAAGGATGAAGGAGATAGGATGATTTGATTTTGAATAAGGAAACCTAGTTTTTGT	2536
QY	2267	ATTCGAAATTTTCATTTGGACTAGCAGCTATTCGGATTACCGAGTTTGGCTGCTTAAAGCCAGG	2326
DB	2537	CTTTAAATTTTTCACCTGGACAAAAGCTAATCAGACTATCGCATAGGCTGCCCTGAAGCCTCG	2596
QY	2327	AAAGTACAAGATAGTCTTTGGATTCAGATGATCTCTTTTGGAGGCTTTTGGCAGGCTTAG	2386
DB	2597	AAATAACAAGTTGCCCTTGGACTCAGATGATCCACTTTTGGTGGCTTCGGAGAAATTTGA	2656
QY	2387	TCATGATGCAAGACACTTCAGCTTTTGAAGGGTGGTACGATAAACCGGCTCGATCCTTCAT	2446
DB	2657	TCATAATGCCGAATATTTTCACTTTTGAAGGATGGTATGATGATCGTCTCGTTCCAAATAT	2716
QY	2447	GGTCTGACACCACTGTAGAACACGAGTGTCTATGCTTTAGTGAGGATGAAGTGGAGAA	2506
DB	2717	GGTGTATGCACCTAGTAGAACACGAGTGTGCTATGCACTAGTAGACAAAGNAGNAGA	2776
QY	2507	TGAATTTGGAACCTGTCCCGGTTTAAGATATATCTTAAACAAG	2550
DB	2777	AGAGAAGAAGTAGCAGTAGTAGAAGAAGTAGTAGTAGAGAAG	2820

RESULT 5

```

US-10-239-145-1
; Sequence 1, Application US/10239145
; Publication No. US20040068766A1
; GENERAL INFORMATION:
; APPLICANT: Danisco A/S
; TITLE OF INVENTION: Enzyme
; FILE REFERENCE: p8156.w
; CURRENT APPLICATION NUMBER: US/10/239,145
; CURRENT FILING DATE: 2002-09-20
; PRIOR APPLICATION NUMBER: GB 0006733.0
; PRIOR FILING DATE: 2000-03-20
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 2563
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (3)..(2549)
US-10-239-145-1

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Query Match 53.4%; Score 1381.8; DB 13; Length 2563;
Best Local Similarity 77.0%; Pred. No. 0;
Matches 1683: Conservative 0; Mismatches 502; Indels 0; Gaps 0;

0.

Db 2525 AGAAGTACAGTGTAGTGAAGAGAA 2549

RESULT 6
US-10-056-454A-19
; Sequence 19, Application US/10056454A
; Publication No. US20030166919A1
; GENERAL INFORMATION:
; APPLICANT: National Starch and Chemical Investment Holding Corporation
; TITLE OF INVENTION: Improvements in or Relating to Plant Starch Composition
; NUMBER OF SEQUENCES: 20
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: National Starch and Chemical Investment Holding Corporation
; STREET: 1000 Uniquest Blvd.
; CITY: Newcastle
; STATE: Delaware
; COUNTRY: United States of America
; ZIP: 19720
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/056,454A
; FILING DATE: 25-Jun-2002
; INFORMATION FOR SEQ ID NO: 19:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2578 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO: 19:
US-10-056-454A-19

Query Match 53.4%; Score 1381.2; DB 15; Length 2578;
Best Local Similarity 77.3%; Pred. No. 0;
Matches 1677; Conservative 0; Mismatches 493; Indels 0; Gaps 0;

Qy 347 TGTGAAGATGAAGTAAATGAAATCTGTTCCAAATGCGGAGACAGTTACATCAGAAA 406
Db TGGTAACTGGAGGAGTCTAAACATTAATTAATCTCTGAAGAGACAAATATTGATGAATC 409

Qy 407 AATTGGATCTAAACCAAGGTCATCTCCACCGGACAGAGGCAAGAAATATATGAT 466
Db TGATAGGATCAGAGAGGGGACCTCCACCTGGACTTGGTCAGAAAGATTTATGAAT 469

Qy 467 AGATCCAAAGCTTGACAGGCTTTCGTCAACACTAGATTACCGGTATTCACAGTACAAAAG 526
Db AGACCCCTTTTGACAAACTATGTCACACCTTGATTACAGGTATTCACAGTACAGAA 529

Qy 527 ACTCGAGAGAAATGTGACAGTGAAGGTAGTCTGGATGCAATTTCTCGTGGCTATGA 586
Db ACTGAGGAGGCAATGTGACAGTGAAGGTGGTGTGGAAGCTTTTCTCGTGGTATGA 589

Qy 587 AAGTGTGGTCTCACCGCTGAACAGGAAATTAATATAGAGTGGGACACAGGAGC 646
Db AAAAAATGGGTTTCACTCGTAGTGTACAGGTATCACTTACCGTGAAGTGGGCTCTGGTGC 649

Qy 647 TACGTGGGCTGATTTGAGATTTTCAATAACTGGAAATCCTAATGAGATGTCATGAC 706
Db CCAGTCAGCTGCCCTCATTTGGAGATTTCAACAAATGGGACGCAATGCTGACATTAGAC 709

Qy 707 TCAGAAATGAGTGTGTGTCTGGAGATCTTTTTCGCGAAATATGAGATGTTTCAACACC 766
Db TCGGAATGAAATTTGGTGTCTGGAGATTTTCTGCGAAATATATGAGTGTCTCTCTGC 769

Qy 767 AATTTCCCATGTTCTCCAGTAAACATAGCATCTCATCTGCGCAACAAAGATTC 826
Db AATTCCTCAGGTCAGAGTGAAGATAGTATGAGACTCATCAGGTGTTAGGATTC 829

Qy 827 TATTCCTGCTGGATCAAGTTCCTCAGTTCAAGCACAGGTGAATCCCATATAATGGCAT 886

Db 830 CATTCTCTGCTTGGATCAACTACTCTTCCACAGCTTCTCTGATGAAATTCATATAATGAAT 889

Qy 887 ATACTATGATCTCCCGAGGAGAGAGATGTGTTCAAAAAATCCTCAGCCCAAGACACC 946

Db 890 ATATTATGATCCACCGAGAGAGAGGTATATCTTCCAAACACCCAGCGCCAAAGAAACC 949

Qy 947 AAAATCACTTCCGGATTTATGAGTCGCACGTTTGAATGAGTAGTACGAGGACGAGTAATTA 1006

Db 950 AAAGTCCCTGAGAAATATAGAAATCTCATATTGAAATGAGTAGTCCGAGGCTTAAATTA 1009

Qy 1007 CACATATGCCAACTTTAGAGATGATGTCTCTCGCATCAAAAAAGCTTGGCTCAATATGC 1066

Db 1010 CTCATAGCTGAATTTTAGAGATGAAGTCTTCTCTCGCATAAAAAGCTTGGTCAATATGC 1069

Qy 1067 TGTTCAGCTCATGGCTATTCAAGAGCAATTCATATTATGCTAGTATTGGGTATCACGTAC 1126

Db 1070 GGTGCAAAATTTATGGCTATTCAAGAGCAATTCATATTATGCTAGTATTGGGTATCATG 1129

Qy 1127 AAACTTTTATGCAGCTAGCAGCGGATTTGAACTCTCTGATGATTTAAAGTCTCTAAATGA 1186

Db 1130 AAATTTTGTGACCAAGAGCGGTTTGGAAAGCCCGACGACCTTAAGTCTTTGATGA 1189

Qy 1187 TAAAGCTCACAGTATAGTCTTCTTGTCTCATGGATATTGTTTCATGATGATGATGATCAAC 1246

Db 1190 TAAAGCTCATGAGCTAGGAATTTGTTCTCATGGACATTTGTTTACAGCCATGATCAAA 1249

Qy 1247 TAATACGTTGGATGGGCTGAATATGTTGATGTTGATGTTGATGTTGATGTTGATGTTGAT 1306

Db 1250 TAATACGTTGGATGGGCTGAATATGTTGATGTTGATGTTGATGTTGATGTTGATGTTGAT 1309

Qy 1307 ACCACGGGCTCATATTGGATGTGGGACTCTCGCTTTTCAAACTATGGGAGCTGGGAGGT 1366

Db 1310 AGCTCGTGGTATCATTTGGATGTGGGATTTCCGCTTTTAACTATGGAACCTGGGAGGT 1369

Qy 1367 TCTAAGGTTTCTTCTTTTCAAAATGCAAGTGGTGGTGGATGAGTACAAAGTTTGAATGGT 1426

Db 1370 ACTTAGGTATCTTCTCTCAAAATGCGAGATGGTGGTGGATGAGTTCAAAATTTGATGAT 1429

Qy 1427 CAGATTTGATGGGTTGATCTCAATGATGATACCCATCATGATGATGATGATGATGATGAT 1486

Db 1430 TAGATTTGATGGTGTGATCAATGATGATATCTCACACGGATTTATCGGTGGGATTCAC 1489

Qy 1487 CGGCACTACAATGAATACATCTTTGGATGCAACTGATGATGATGATGATGATGATGATGAT 1546

Db 1490 TGGGAATCTACGAGGAATCTTTGGAATCGCACTGATGATGATGATGATGATGATGATGAT 1549

Qy 1547 GCTGTTGAATGATATGATCATGCTCTCTTCCAGAGGCTGTACCAATTTGGTGAAGATGT 1606

Db 1550 GCTGTTCAAGCATCTTATTATCATGGGCTTTTCCAGATGCAATTTACCAATTTGGTGAAG 1609

Qy 1607 TAGTGGGAATGCCAACAGTTTGCATTTCCGGTTGAAGATGGTGGTGGTGGTGGTGGTGGT 1666

Db 1610 TAGCGGAATGCCAGCATTTTGTATTTCCCGTTCAAGATGGGGGTTTGGCTTTGATGATCG 1669

Qy 1667 TCTCCACATGGCTGTTGCTGATAAATGGTGTGAGATTTATTCAGAAAGAGATGAAGATTG 1726

Db 1670 GCTGCATATGGCAATTTCTGATAAATGATTTAGTTGCTCTCAAGAAACCGGATGAGGAT 1729

Qy 1727 GAAATCGGTGACATTTGATCATATGCTGACCAACAGCGGTTGGTGGAAAGTGTGTTTC 1786

Db 1730 GAGAGTGGGTGATTTGTTTATACATCACTGACAAATAGAGATGGTTCGGAAGATGTGTTTC 1789

Qy 1787 TTAGTCTGAAAGTCATGACACGCGCTTTGTTGGTGAACAAACTATTTCATTTTCGCTGAT 1846

Db 1790 ATAGCTGAAAGTCATGATCAAGCTCTAGTGGTGAATAAACTATAGCATTTCTGGCTGAT 1849

Qy 1847 GGAACAAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1906

Db 1850 GGAACAAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1909

Qy 1907 TGGAGTAGCATTTGCAACAAATGATCAGGCTTATTACCATGGGATTTAGCGGAGAGGATA 1966

1910	TGGGATACGATTCACAGATGATTAAGCTTGTAACATATGCGATTAGCAGGAGGAAGGTA	1969
1967	TTTGAATTTTATGGAAATGAATTTGGACACCCGAGTGGATTTGATTTTCCAGAGGTGA	2026
1970	CCTAAATTTTCATGGGAAATGAATTCGGCCACCCCTGAGTGGATTTGATTTTCCCTAGGGCTGA	2029
2027	TCTACATCTTCCAGTGGTAAATTTGTTCTTGGGAAACAATTACAGTTATGATAAATGCCG	2086
2030	ACAACACCTCTCTGATGACTCAGTAATTTCCCGGAAACCAATTCAGTTATGATAAATGCAG	2089
2087	CGCTAGGTTTTCATCTAGGCAATTCAAAGCATCTGAGATATCATGGAATGCAAGAGTTTGA	2146
2090	ACGAGATTTGACCTGGGAGATGCAATATTTAAGATACCGTGGGTTGCAAGAATTTGA	2149
2147	TCAAGCAATTCAGCATCTTGAAGAGCCATATGGTTTCATGACTTCTGAGCACCATAACAT	2206
2150	CCGGGCTATGCAGTATCTTGAAGATAAATATGAGTTTATGACTTCAGAACACCCAGTTTCA	2209
2207	ATCAGGAAAGATGAAGGATTCGATCAITGTCTTCGAGAGGGGAAACCTGCTTTTGT	2266
2210	ATCAGAAAGATGAAGGATGAGTATTTGTAATTTGAAAGGAAACCTAGTTTGT	2269
2267	ATTCAAATTTTCATTTGGACTAGCAGCTATTCGATTTACCGAGTTGGCTGCTTAAAGCCAGG	2326
2270	CTTTAAATTTTCACTGGACAAAAGCTATTCAGATATCGATAGGCTGCCTGAAGCCCTGG	2329
2327	AAAGTCAAGATAGTCTTTGGATTCAGATGATCCTTTGTTGGAGGCTTTGGCAGGCTTAG	2386
2330	AAATACAAGTTGCTTTGGACTCAGATGATCCACTTTTGGTGGCTTCGGGAGAAATTTGA	2389
2387	TCATGATGCAGAGCACTTCAGCTTTGAAGGGTGGTACGATAACCGGCTTCGATCCTTCAT	2446
2390	TCATAATGCCGAATATTTTCACTTTGAAGGATGGTATGATGATCGTCTCGTTCAATTTAT	2449
2447	GGTGTACACACCATGTAGAACAGCAGTGGTCTATGCTTTAGTGGAGGATGAGTGGAGAA	2506
2450	GGTGTATGCACTTTGTAGAACAGCAGTGGTCTATGCACTGTAGACAAAGAAGAAGA	2509
2507	TGAATTTGAA 2516	
2510	AGAAGAGAA 2519	

RESULT 7

US-10-056-454A-17

; Sequence 17, Application US/10056454A

; Publication No. US2003016919A1

; GENERAL INFORMATION:

; APPLICANT: National Starch and Chemical Investment Holding Corporation

; TITLE OF INVENTION: Improvements in or Relating to Plant Starch Composition

; NUMBER OF SEQUENCES: 20

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: National Starch and Chemical Investment Holding Corporation

; STREET: 1000 Uniqema Blvd.

; CITY: Newcastlle

; STATE: Delaware

; COUNTRY: United States of America

; ZIP: 19720

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/10/056,454A

; FILING DATE: 25-Jun-2002

; INFORMATION FOR SEQ ID NO: 17:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 2529 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; SEQUENCE DESCRIPTION: SEQ ID NO: 17:

QY	1367	TCTAAGGTTTCTTTCTTTCAAAATGCAAGGTCGGTGGTGGATGAGTACAAAGTTTCATGGGTT	1426
DB	1363	ACTTAGGTATCTTCTCTCAANTGGAGATGGTGGTGGATGAGTCAAAATTTGATGGATT	1422
QY	1427	CAGATTTGATGGGTGACTTCAATGATGTTACACCCATCATGGAATGTCAGGTAGATTTTAC	1486
DB	1423	TAGATTTGATGGTGTGACATCAATGATGTTATCTCACACGGATTAATCGGTGGGATTCAC	1482
QY	1487	CGGCAACTCAAAATCAATACCTTTGGATGCAACTGATGATAGATGCTGTGTTTATTGAT	1546
DB	1483	TGGGAACCTACGAGGAATACCTTTGGACTCGCAACTGATGUGGATGCTGTTGTGATCTGAT	1542
QY	1547	GCTGTTGAAATGATATGATTCATGGTCTCTTCCAGAGGCTGTCCACCATTTGGTCAAGATGT	1606
DB	1543	GCTGGTCAACGATCTTTATTCAAGGCTTTTCCAGATGCAATTTACCATTGGTCAAGATGT	1602
QY	1607	TAGTGGAAATGCCAACAGCTTTTGCAATTCGGTTGGAAGATGGTGGTGTGGCTTTGATTCG	1666
DB	1603	TAGCGGAATGCCGACATTTTGTATTCOCGTTCAGATGGGGGGTGTGGCTTTGCACTATCG	1662
QY	1667	TCTCCACATGGCTGTCTCGTCAATAAATGGGTGAGATTTATTACAGAAAGACATCAAGATTG	1726
DB	1663	GCTGCATATGGCAATTCCTGATTAATGGATTTGAGTTGCTCAAGAAACGGGATGAGATTG	1722
QY	1727	GAATAATGGGTGACATTTGATACATATGCTGTGACCAACAGCGCGTGGTGGAAAGTGTGTTTC	1786
DB	1723	GAGAGTGGGTGATATTGTTTATACACTGACAAATAGAAAGATCGTCGGAAAGTGTGTTTC	1782
QY	1787	TTATGCTGAAGATCATGACACGAGCGCTTGTGGTGACAAAACATTTTGCAATTTGGGCTGAT	1846
DB	1783	ATMCGCTGAAAGTCATGATCAAGCTCTAGTCGGTGTATAAAACTATATGACTTCTGGCTGAT	1842
QY	1847	GGACAAGATATGATGACCTTCATGGCTCTTGACAGACCACTACTCTCTCATAGATCG	1906
DB	1843	GGACAAGATATGATGATGATTTTATGGCTCTGGATAGACCGYCAACATTAATATAGTCG	1902
QY	1907	TGGAGTAGCATTTGCACAAAATGATCAGGCTTATTAACATCGGATTTAGCGGAGAAAGATA	1966
DB	1903	TGGGATAGCATTTGCACAAGATGATTAGGCTTTGAACTATGGGATTAGGAGGAGAAAGGTA	1962
QY	1967	TTTGAATTTTATGGGAAATGAAATTTGACACCCGAGTGCAATTTTCCAGAGGTTGA	2026
DB	1963	CCTAAATTTTATGGGAAATGAAATTCGGCCACCTCTAGTGGATGATTTCCCTAGGGCTGA	2022
QY	2027	TCTACATCTTCCCAGTGGTAAATTTGTTCTCTGGGAAACAAATTACAGTTATGATAAATGCCG	2086
DB	2023	RCAACACTCTCTGATGGCTCAGTAAATCCCGGAAACCAATTCAGTTATGATAAATGCAG	2082
QY	2087	GGGTAGGTTTGATCTAGGCAATTCAAAGCATCTGAGATATCATGGAAATGCAAGATTGA	2146
DB	2083	ACGGAGATTTGACCTGGGAGATGAGAAATATTTAAGATACCATGGGTGTCAGAAATTTGA	2142
QY	2147	TCAAGCAATTCAGCATCTTCAAGAGCCATGTTTTCATGCACTCTCAGCACCAATACAT	2206
DB	2143	CCGGGCTATGCAATCTTGAAGATAAATATGAGTTTATGACTTTCAGAACCAATTCAT	2202
QY	2207	ATCACGGAAGGATGAAAGGATCCGATCATTTGCTTCGAGAGGGGAAACCTCGTTTTGT	2266
DB	2203	ATCACGAAAGGATGAAGGATAGGATGATTTGTTATTTGAAARAGGAAACCTAGTTTTGT	2262
QY	2267	ATTCAAATTTTCAATTTGGACTAGCACTATTCGGATTCAGGAGTTGGCTGTCTTAAAGCCAGG	2326
DB	2263	CTTTAAATTTTCACTTGGACAAATAGCTATTCAGACTATCGATAGGGCTGCCTGAAGCCCTGG	2322
QY	2327	AAAGTACAAGATAGTCTTTGGATTCAGATGATCCTTTGTTTGGAGGCTTTTGGCAGGCTTAG	2386
DB	2323	AAATAACAGGTTGGCTTTGGACTCAGATGATTCCACTTTTGTGGGCTTTGGGAGAAATGA	2382
QY	2387	TCATGATCGAGAGCACTTCAGCTTTGAAGGGTGGTACGATAACCGGCTCGATCCTTCAT	2446
DB	2383	TCATAATGCCGAATTTTCACTCTGAAGGATCGTATGATGATCGTCTCGTTCAATTTAT	2442

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Qy      2447 GGTGTCACACCATTAGTAGAACACACAGTGGTGCTATGTTAGTCGAGAGTAAGAAGTGGAGAA   2506
Db      2443 GGTGTATGCACCTAGTAGAACAACAGCAGTGGTGCTATGCCACTAGTAGACAAAANTAGAAGNAGA   2502
Qy      2507 TGAATTGGAACCTGTCCCGGTTAA   2531
Db      2503 AGAAGAGAAGAANAANCCGNNGAAGAA   2527

RESULT 8
US-10-056-454A-18
; Sequence 18, Application US/10056454A
; Publication No. US20030166919A1
; GENERAL INFORMATION:
; APPLICANT: National Starch and Chemical Investment Holding Corporation
; TITLE OF INVENTION: Improvements in or Relating to Plant Starch Compos
; NUMBER OF SEQUENCES: 20
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: National Starch and Chemical Investment Holding Corpor
; STREET: 1000 Unigema Blvd.
; CITY: Newcastle
; STATE: Delaware
; COUNTRY: United States of America
; ZIP: 19720
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/056,454A
; FILING DATE: 25-Jun-2002
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3231 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO: 18:
US-10-056-454A-18
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Query Match	53.2%	Score 1377.8	DB 15	Length 3231
Best Local Similarity	76.1%	Pred. No. 0		
Matches 1694	Conservative 2	Mismatches 529	Indels 0	Gaps 0
QY	347	TGTTGAAGATCAAGTAAATAAAGAACTGTGTTCCAAATCGCGGAGACAGTGTAGCATCAGAAA	406	
Db	656	TGGTAAACTGGAGGAGTCTAAACATTAATACTTCTGAAGAGCAATATTATGATGAATC	715	
QY	407	AATTGGATCTAAACCAAGGTCATTCCTCCACCGGAGAGGGCAAGAATATATGACAT	466	
Db	716	TGATAGGATCAGAGAGAGGGGCATCCCTCCACCTGGACTTGGTCAGAAGAATTATGAAAT	775	
QY	467	AGATCCAACTTGACAGGCTTTCGTCAACACCTTAGATTACCGGTATTTCAGGTACAAAAG	526	
Db	776	AGACCCCTTTTGACAAACTATCGTCAACACCTTGATTACAGGTATTTCAGGTACAGAA	835	
QY	527	ACTCCGAGAAGAAATTGACAAGTATGAAGTAGTGTGGATGCATTTTCTCGTGGCTATGA	586	
Db	836	AATGAGGGAGGCAATTGACAAGTATGAGGGTGGTTTGGAAAGCTTTTCTCGTGGTTATGA	895	
QY	587	AAAGTTTGGTTTCTCAGCGAGTAAACAGAGAAATACTTATAGAGGTGGGCACGAGGC	646	
Db	896	AAAAATGGGTTTCACTCGTAGTGCTACAGGTATCACTTACCGTAGTGGGCTCTCTGGTGC	955	
QY	647	TACGTGGGCTGCATTGATTGGAGATTTCAAATACTGGAATCCTTAATGCAGATGTCAATGAC	706	
Db	956	CCAGTCAGCTGCTCTCATTTGGAGNTTCAACAATTGGGACGCAAAATGCTGCATTATGAC	1015	
QY	707	TCGAAATGAGTGTGGTGTCTGGGAGATCTTTTTTGGCCGAATAATGCAGATGGTTCACACC	766	
Db	1016	TCGGAATGAATTTGGTGTCTGGAGATTTTTCTGCCAAATAATGTGGAGTGTCTCTCTGC	1075	

; APPLICATION NUMBER: US/10/056,454A									
; FILING DATE: 25-Jun-2002									
; INFORMATION FOR SEQ ID NO: 16:									
; SEQUENCE CHARACTERISTICS:									
; LENGTH: 2576 base pairs									
; TYPE: nucleic acid									
; STRANDEDNESS: single									
; TOPOLOGY: linear									
; SEQUENCE DESCRIPTION: SEQ ID NO: 16:									
US-10-056-454A-16									
Query Match									
Best Local Similarity 77.3%; Score 1370.4; DB 15; Length 2576;									
Matches 1677; Conservative 0; Mismatches 491; Indels 2; Gaps 1;									
QY	347	TGTTGAAGATGAAGTAAATAAAGAAATCTGTTCCAAATGCGGAGAGACAGTTGATCATCAGAAA	406						
DB	350	TGGTAAACTGGAGGAGTCTAAACACATTAAATACTTCTGAAGAGACAAATTATTGATGAATC	409						
QY	407	AATTGGATCTAAACCAAGTCCATTCTCCACCCGCGAGAGGCAAGAAATATATGACAT	466						
DB	410	TGATAGGATCAGAGAGAGGGGCATCCCTCCACCTGGACTTGGTCAGAAGATTTTATGAAT	469						
QY	467	AGATCCAAAGCTTGACAGGCTTTCGTCAACACCTAGATTACCGGTATTCCACAGTACAAAAG	526						
DB	470	AGACCCCTTTTGACAAACTATCGTCAACACCTTGATTCAGGTATTACAGTATACAGTACAGAA	529						
QY	527	ACTCCGAGAAGAAATGGAAGAATGAAGGTAGTCTGATGCAATTTCTCGTGGCTATGA	586						
DB	530	ACTGAGGGAGGCAATTGACAGTATGAGGGTGGTTTGGAAAGCTTTTCTCGTGGTTATGA	589						
QY	587	AAAGTTTGGTTTCTCACCGAGTGAACAGGATATCTTATAGAGTGGGCGACCAAGAGC	646						
DB	590	AAAAATGGGTTTCACTCGTAGTGCTACAGGTATCACTTACCGTGAGTGGGCTCTCGTGTC	649						
QY	647	TACGTGGGCTGCAATTGATTGGAGATTTCAATAAATCTGGAATCTTAATGAGATGTCATGAC	706						
DB	650	CCAGTCAGCTGCCCTCATTTGGAGATTTCAACAAATTTGGGCGCAATCTGACATATGAC	709						
QY	707	TCAGAAATGAGTGTGTGTCTGGAGATCTTTTTCGCGAATTAATGAGATGTTTCAACCAC	766						
DB	710	TCGGAATGAATTTGGTGTCTGGAGATTTTCTGCCAAATAATGTGGATGTTCTCTCTGC	769						
QY	767	RAATCCCATGTTCTCCAGTAAAGATACGATGATCTCCATCTGCGCAACAAGATTC	826						
DB	770	AATTCCTCATGGGTCCAGAGTGAAGATACGTATGGACACCTCCATCAGGTGTTAAGGATTC	829						
QY	827	TATTCCTGCTTGGATCAAGTTCTCAGITTCAGACACACAGGTGAATCTCCCATATATATGGCAT	886						
DB	830	CATTCTCTGTTGATCAACTACTC--TACAGCTTCTGTGNAATTTCCATATATGGAAT	887						
QY	887	ATACATATGATCTCCCGAGGAGGAGAGATATGTGTTCAAAAATCTCAGGCCAAAGAGACC	946						
DB	888	ATATTATGATCCACCGAAGAGGAGAGGTATATCTTCCAAACACCCACCGCCAAAGAAACC	947						
QY	947	AAAATCACTTCGGATTTATGATGCTCCAGTGGGAATGAGTAGTACGGAGCCAGTAATTAA	1006						
DB	948	AAAGTCGCTGGAATATATGAATCTCATATTGGAATGAGTAGTCCGGAGCCCTAAAAATTAA	1007						
QY	1007	CACATATGCGCACTTTAGAGATGATGTGCTTCTCCGCATCAAAAAGCTTGGCTCAAAATGC	1066						
DB	1008	CTCATACGTGAATTTTAGAGATGAAGTCTTCTCCGCATATAAAGAGCTTGGGTACAATGC	1067						
QY	1067	TGTTGAGCTCATGGCTATTCAAGAGAGATTCATATTATGCTAGTTTGGGTATCAGGTCAAC	1126						
DB	1068	GCTGCAAAATTATGGCTATTCAAGAGCAITCTTATTATGCTAGTTTGGTTATCATGTCAAC	1127						
QY	1127	AAACTTTTATGACGTAGCAGCCGATTTGGAACTCTCGATGATTTAAAGTCTCTAATAGA	1186						
DB	1128	AAATTTTGTGCAACCAAGCAGCCGTTTGGAAACGCCGACGACCTTAAGTCTTTGATGA	1187						
QY	1187	TAAAGCTCACAGTATAGGTCTTTCTTGTCTCATGGATATGTTTCATGCCATGCATCAAC	1246						

DB	1188	TAAAGCTCATGAGCTAGGAATTTGTTGTTCTCATGGACATTTGTTTCACAGCCATGCATCAAA	1247						
QY	1247	TAATACGTTGGATGGGCTGAATATGTTTGAATGCTAGCGATGGTCACTACTTTTCACTCTGG	1306						
DB	1248	TAATACCTTTAGATGGACTGAACATGTTTGAACGACCGATAGTGTGTTTCACTCTGG	1307						
QY	1307	ACCACGGGTCATCATTTGGATGTGGGACTCTCCGCTTTTCAACTATGCGGAGCTGGAGGT	1366						
DB	1308	AGCTCGTGGTTATCATTTGGATGTGGGATTCGCCCTTTTAACTATGNAACCTGGAGGT	1367						
QY	1367	TCTAAGGTTTCTTCTTTCAAAATGCAAGGTGGTGGTGGATGAGTACAAGTTTGAATGGTT	1426						
DB	1368	ACTTAGGTATCTTCTCTCAAAATGCGAGATGGTGGTGGATGAGTTCAAAATTGATGATTT	1427						
QY	1427	CAGATTTGATGGGCTGACTTCAATGATGATACCCCATCGGATTCGACGATGATGATTTTAC	1486						
DB	1428	TAGATTTGATGGTGTGACATCAATGATGATATCTCACCGGATTTATCGGTGGGATTCAC	1487						
QY	1487	CGGCAACTACAATGAATACTTTTGGATATGCAACTGATGTAGATGCTGTGTGTTTATTTGAT	1546						
DB	1488	TGGNACTACAGGAATACTTTTGGACTCGCAACTGATGTGATGCTGTGTGATCTGAT	1547						
QY	1547	GCTGTTGAATGATATGATTCATGCTCTTTCCAGAGGCTGTCAACATTCGTTGGAAGATGT	1606						
DB	1548	GCTGGTCAACGATCTTATTATCCGCTTTTCCAGATGCAATTTACCAATTCGTGAAGATGT	1607						
QY	1607	TAGTGGNAATGCCAACAGTTTGCATTCGGTTGAGATGGTGGTGGCTTTGATTTATTCG	1666						
DB	1608	TAGCGGAATCCGACATTTTGTATCCCGTTTCAAGATGGGGGTGTTGGCTTTGACTATCG	1667						
QY	1667	TCTCCACATAGGCTGTTCTGATAAATGGGTTGAGATTTATTCAGAAAGAGATGAAGATTG	1726						
DB	1668	GCTGCATATGGCAATTTGCTGATAAATGGAATGAGTTGCTCAAGAAACCGGATGAGGATTG	1727						
QY	1727	GAATAAGGGTGACATTTGTAATATGCTGCAACACAGCGGTGGTTGGAAGATGTGTTTC	1786						
DB	1728	GAGAGTGGGTGATATTTCTTATACACTGACACAAATAGAAAGATGGTCGGAAGATGTGTTTC	1787						
QY	1787	TTATGCTGAAAGTCATGACCCAGGCTTGTGTTGGTGACAAATATTTCATTTTGGCTGAT	1846						
DB	1788	ATAGCTGAAAGTCATGATCAAGCTCTAGTCTGGTGATGATGATGATGATGATGATGATGAT	1847						
QY	1847	GGACAAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT	1906						
DB	1848	GGACAAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT	1907						
QY	1907	TGGAGTAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT	1966						
DB	1908	TGGGATAGCATTTGCACAAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT	1967						
QY	1967	TTTGAATTTTATGGAAATGAATTTGGACACCCGAGTGGATGATGATGATGATGATGATGATGATGAT	2026						
DB	1968	CCTAAATTTTATGGAAATGAATTTGGCCACCTTGGAGTGGATGATGATGATGATGATGATGATGATGAT	2027						
QY	2027	TCTACATCTTCCCAAGTGGTAAATTTGTTCTCTGGGAAACAAATTACAGTTTATGATTAATGCCG	2086						
DB	2028	ACAACACTCTCTGATGATCAGTAAATTTCCCGGAAACCAATTCAGTTTATGATTAATGCAG	2087						
QY	2087	GCGTAGGTTGATCTAGGCAATTTCAAGATCTGAGATATCATGGAATGCAAGAGTTTGA	2146						
DB	2088	ACGAGATTTTACCTGGGAGATGCAAAATATTTAAGATACCGGGTGTGCAAGAAATTTGA	2147						
QY	2147	TCAGCAATTCAGCATCTTGAAGAGCTATGTTTTCATGACTTCTGAGCACCAATACAT	2206						
DB	2148	CCGGCTATGCGATATCTTGAAGATAAATAGTTTATGATTCAGAACACCAAGTTTCAAT	2207						
QY	2207	ATCAACGGAAGGATGAAAGGATCGGATCATTTGCTTCCGAGAGGGGAAACCTCGTTTTTGT	2266						
DB	2208	ATCAACGGAAGGATGAAAGGATAGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT	2267						
QY	2267	ATTCAATTTTCAATTTGGATAGCAGCTATTCGGATTACCGAGTTGCGTGTAAAGCCAGG	2326						
DB	2268	CTTTAAATTTTCACTGGGACAAAGAGCTATTCAGACTATTCGATAGGCTGCTGAAAGCCTGG	2327						

Db 1893 GCTGATATGCAATTTGCTGATAACGATGAGTTGCTCAAGAAACGGGATGAGATTG 1952
Qy 1727 GAAATAGGTTGACATTTGATACATATGCTGACCAACAGCGGGTGGTGGAAAAGTGTGTTTC 1786
Db 1953 GAGAGTGGTGATATTTGTTTACACTACAAATAGAAAGATGGTCGGAAGATGTGTTTC 2012
Qy 1787 TTATGCTGAAAGTCATGACACCGCCCTTTGTTGGTGACAAACTATTGCAATTTGCGCTGAT 1846
Db 2013 ATACCGCTGAAAGTCATGATCAAGCTCTAGTCGGTGATAAACTATAGCAATTTCTGCGTGAT 2072
Qy 1847 GGACAAGCATATGATGATCTTCAATGCTTCTGACAGACCATCTACTCTCTCATAGATCG 1906
Db 2073 GGACAAGCATATGATGATTTTATGGCTCTGGATAGACCGTCAACATCAATTAATAGATCG 2132
Qy 1907 TGGAGTAGCATTTGCAAAATATGATCAGGCTTATTAACATGGGATAGGCGGAGAGGATA 1966
Db 2133 TGGGATAGCATTTGCAAAAGATGATTAGGCTTTGTAACATATGGGATTTAGGAGGAGAGGATA 2192
Qy 1967 TTTGAAATTTATGGGAATGAAATTTGGACACCCCGAGTGGATGATTTTCCAAAGAGTGA 2026
Db 2193 CCTAAATTTATGGGAATGAAATTCGGCCACCCCTGAGTGGATGATTTTCCCTAGGCGTGA 2252
Qy 2027 TCTACATCTTCCAGTGGTAAATTTGTTTCTGGGAACAAATTACAGTTATGATAAATGCCG 2086
Db 2253 ACAACACCTCTCTGATGGCTCAGTAATCCCGGAACCAATTCAGTTATGATAAATGCAG 2312
Qy 2087 GCGTAGGTTTGTATCTAGGCAATTTAAAGCATCTGAGATATCATGGAATGCAAGAGTTTGA 2146
Db 2313 ACGGAGATTTGACCTGGGAGATGCAAGATAATTTAAGATACCGCTGGGTTGCAAGAAATTTGA 2372
Qy 2147 TCAAGCAATTCAGCATCTTGAGAGCCATATGTTTCAATGATCTTGAGCACCAATATCAT 2206
Db 2373 CGGCGCTATGCAATATCTTGAAGATAAATATGAGTTTATGATCTTCAGAACCAACAGTTTCA 2432
Qy 2207 ATCCGGAAGATGAAAGGATCGGATCATTTGTTTTCGAGAGGGGAAACCTCGTTTTTGT 2266
Db 2433 ATCCGGAAGATGAAAGGATGAGATGATGATTTGTTTGAAGAAAGGAAACCTAGTTTTGT 2492
Qy 2267 ATTCAATTTTCAATGAGATAGCAGCTATTCGGAATACCGAGTTGGCTGCTTAAAGCCAGG 2326
Db 2493 CTTTAAATTTTCACTGGCAAAAGCTATTCAGACTATCGCATAGCCTGCTGGAAGCCCTGG 2552
Qy 2327 AAAGTACAAGATGATCTTGGATTCAGATGATCTTTGTTTTCGAGGCTTTGCGAGCTTTAG 2386
Db 2553 AAAATACAAGGTTGCTTGGACTCAGATGATCCACTTTTGGTGCTTCGGGAAATTTGA 2612
Qy 2387 TCATGATGACAGACCTTCAGCTTTTGAAGGGTGGTACGATAACCGGCCCTCGATCCTTCAT 2446
Db 2613 TCATAATGCCGATATTTTCACTTTGAAGGATGGTATGATGATCGTCTCGTTCAATTTAT 2672
Qy 2447 GGTGTACACCATGTAGAACAGCAGTGGTCTATGCTTTAGTGGAGGATGAGTGGAGAA 2506
Db 2673 GGTGTATGCACCTTTGAAACAGCAGTGGTCTATGCACTATGATAGTACAAAGAAAGAGA 2732
Qy 2507 TGAATTTGAACCTGTCGCGGTTTAAAGATATATCTTTAAACAACAGGTTCTGGAAGCAGGATG 2566
Db 2733 AGNAGAAGAAGAAGAAGATGACGACGATAGAGAAGTAGTAGTAGAGAAGAATG 2792

RESULT 11
US-09-938-842A-337
; Sequence 337, Application US/09938842A
; Patent No. US20020160378A1
; GENERAL INFORMATION:
; APPLICANT: Harper, Jeff
; APPLICANT: Kreps, Joel
; APPLICANT: Wang, Xun
; APPLICANT: Zhu, Tong
; TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING
; TITLE OF INVENTION: SAME, AND METHODS OF USE
; FILE REFERENCE: SCRI1300-3
; CURRENT APPLICATION NUMBER: US/09/938,842A

; CURRENT FILING DATE: 2001-08-24
; PRIOR APPLICATION NUMBER: US 60/227,866
; PRIOR FILING DATE: 2000-08-24
; PRIOR APPLICATION NUMBER: US 60/264,647
; PRIOR FILING DATE: 2001-01-16
; PRIOR APPLICATION NUMBER: US 60/300,111
; PRIOR FILING DATE: 2001-06-22
; NUMBER OF SEQ ID NOS: 5379
; SEQ ID NO 337
; LENGTH: 2577
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
US-09-938-842A-337

Query Match 52.6%; Score 1360.4; DB 9; Length 2577;
Best Local Similarity 74.1%; Pred. No. 0;
Matches 1778; Conservative 0; Mismatches 586; Indels 36; Gaps 3;

Qy 144 TTTTCTAGGAGGGTCTTCTCTGGAAAGTCACTCTCATGAATCTGACTCTCTCAAAATGTAATG 203
Db 136 TCTTCTGGGAAGGTTTGTCTCGAAGCCATCGTATGATTTCTGATTCGTCTTCTCTTAGCT 195
Qy 204 GTCACTGCTTTCTAAAGAGTCCCTTCCTGATGGTGGATTGAATGCTATTCTTCTTCAACA 263
Db 196 ACCACTGCATCTGAGAAGCTCCGTGGCCA---TCAGAGTGATAGCTCTTCATCTGCGCTCT 252
Qy 264 GATCAATTGGAAGCCCTGGCAGAGTTTTCAGAAAGATCCCGAGTGTCTTACTGATGTTGAG 323
Db 253 GATCAAGTACAATCTCGGATATCTGCTCTGACGATACTCAGGTGCTTCGGCAATGTAGAC 312
Qy 324 AGTCTCAATTTGATGATGAATGATTTGTTGAAGATGAAGTAAATAAAGAAATCTG----TTCC 379
Db 313 GTTCAGAAACTGAAGAGCCAGGAAACAGAGACACTAGATCAAACTCTCTGCACCTCTCA 372
Qy 380 AATCGGGGAGACAGTTAGCATCAGAAAAATTT----- 410
Db 373 ACATCTGGAAGCATAAAGTTATAAAGAAAGATTTTTCGAAGATGTCAACTCTGTGCAACAA 432
Qy 411 GGATCTAAACCAAGGTCATTTCTCCACCCGAGAGGGCAAGAAATATATGACATAGAT 470
Db 433 GAAGTTGGGAGAGGAAGATTTCCACCTCTTGGAGATGGGAAGAGAATATATGACATTGAT 492
Qy 471 CCAAGCTTTGACAGGCTTTTCGTCAACACCTAGATTACCGGTATTTCACAGTACAAAGACTC 530
Db 493 CCTATGTTGAACAGTCATCGTAATCATCTTGTATACCGATATGGGCAAGTACAGAAAACTG 552
Qy 531 CGAAGAAATTTGACAGATGATGAAGTATGAAGTATGCTGATGCAATTTCTCTGCTGCTATGAAAAG 590
Db 553 CGTGAAGAAATTTGACAAAGATGAAGGTGGTTTGGAGGCAATTTTCTCGTGGTTATGAAAATA 612
Qy 591 TTTGGTTTCTCAGCAGTGAACAGGAATAACTTTATAGAGATGGGCACACGAGGAGCTACG 650
Db 613 TTTGGCTTCACTCGAAGCCCATCTGGTATCACCTTACCGGAATGGGCAACCGGAGCTTAG 672
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Qy 891 TATCATCTCCCGAGGAGAGATGATGTTTCAAAATCTTCAAAATCTCTCAGCCCAAGAGACCAAAA 950
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[illegible]

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1491	AAC	TCAATGATATCT	TTGGATATGCAACT	GTAGTAGCTGTGGTTTAT	TTTTCATGCTG	1550
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1693	CACATGGCAG	TGGCAGATAAAT	TGATTTGAGCTCTTTA	GAGAGAGACGAGCTTGGAG	1752	
1731	ATCGGTGACA	TTGTACATATGCT	GCACCAACAGCGGTGGT	TGCAAAAGTGTGTTCTTAT	1790	
1753	GTGTTGGTGA	TAACTTTTCA	CGCTTACCAACAGAGGT	GGGAGAGAAATGTGCTCTAT	1812	
1791	GCTGAAAGT	CATGACACAGG	CCCTTTTGTGTGACAA	AACATTTATTTGCAATTTTGGCTGATCGAC	1850	
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1851	AAGGATATGA	TGATCTTCA	TGGCTCTTTGACAGACAT	CTACTCTCTCATAGATCGTGA	1910	
1873	AAGGACATGA	TATGATTTTCA	TGGCGCTGTGATAGACAG	CCCACTCCGCGTGTAGACCGTGGG	1932	
1911	GTAGCAAT	TGCAAAATGAT	CAGCGCTTATTA	CCATGGGATTAGCGGAGAAAGGATATTTG	1970	
1933	ATTGCTTTT	TACAAAATGAT	CCGCTCTCATTTACG	TGGGATTTGGGTGGAGAGGATACCTC	1992	
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2151	GCAATTCAG	CAATCTTTGA	AGACCTATGTTTTCAT	GAATCTTGTAGCACCAATATCATATCA	2210	
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Db	1067	CGGATATACGAAACTCATGTTGGAAATGATGACGAGCCAAAGATCAACACGATATGCA	1126
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Db	1487	CTACTATCCAATGCAAGATGGTGGCTCGAGGAGTATAAGTTTGTATGGTTTCAAGATTTGAC	1546
Qy	1437	GGGTGACTTCAATGATGTACACCCATCATCGATGGATGGAGTAGATTTTACCGGCAACTAC	1496
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Db	1607	AGTGAATACTTTGGATTTGCCACTGATGCTGATGAGTAGTTTACTTGTGCTGTGAAT	1666
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Db	1667	GATTTAAATTCATGGACTTTATCTCTGAGGCTGTAGCCATTTGGTGAAGATGTCAAGTGAATG	1726
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Qy	2457	CCATGTAGACACAGCTGCTATGCTTTTATGTGAGGATGAA	2498
Db	2567	CCTAGCAGAACCTGCGTTGTCTATGCTCCAGCGGAATGAGAA	2608

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Job time : 1591 secs

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OM nucleic - nucleic search, using sw model

Run on: July 16, 2004, 18:07:05 ; Search time 182 Seconds
(without alignments)
7891.280 Million cell updates/sec

Title: US-09-297-703C-28

Perfect score: 2588

Sequence: 1 cttcttaacttcagcgaa.....attattgattctctatggt 2588

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

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Maximum Match 100%

Listing first 45 summaries

Database :

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1382.4	53.4	3074	US-09-087-277-1	Sequence 1, Appli
2	1382.4	53.4	3074	US-09-658-499-1	Sequence 1, Appli
3	1256.6	48.6	2720	US-09-731-166-11	Sequence 11, Appli
4	1251.8	48.4	2446	US-09-731-166-9	Sequence 9, Appli
5	1251.8	48.4	2665	US-09-257-894-1	Sequence 1, Appli
6	1251.8	48.4	2725	US-08-941-445A-14	Sequence 14, Appli
7	1245.2	48.1	2853	US-09-609-040-3	Sequence 3, Appli
8	1097	42.4	2087	US-09-257-894-9	Sequence 9, Appli
9	1095.4	42.3	2165	US-09-257-894-8	Sequence 8, Appli
10	947.4	36.6	1393	US-09-087-277-3	Sequence 3, Appli
11	947.4	36.6	1393	US-09-658-499-3	Sequence 3, Appli
12	633.4	24.5	2470	US-09-731-166-13	Sequence 13, Appli
13	633.4	24.5	2487	US-09-257-894-19	Sequence 19, Appli
14	633.4	24.5	2565	US-09-257-894-24	Sequence 24, Appli
15	633.4	24.5	2763	US-08-941-445A-16	Sequence 16, Appli
16	633.4	24.5	2772	US-09-257-894-12	Sequence 12, Appli
17	605.2	23.4	3128	US-08-716-449-1	Sequence 1, Appli
18	587.8	22.7	2909	US-08-104-158-1	Sequence 1, Appli
19	587.8	22.7	2909	US-09-609-040-1	Sequence 1, Appli
20	546.8	21.1	1809	US-09-257-894-25	Sequence 25, Appli
21	546.8	21.1	1865	US-09-257-894-20	Sequence 20, Appli
22	369	14.3	11469	US-09-367-895-29	Sequence 29, Appli
23	369	14.3	11478	US-08-981-803-29	Sequence 29, Appli
24	369	14.3	11478	US-08-983-440-29	Sequence 29, Appli
25	326.6	12.6	5402	US-09-221-017B-194	Sequence 194, Appli
26	178.8	6.9	303	US-09-313-294A-6200	Sequence 6200, Appli
27	109.6	4.2	414	US-09-257-894-2	Sequence 2, Appli

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c	30	80.8	3.1	1830121	4	US-09-557-884-1	Sequence 1, Appli
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c	34	68.4	2.6	2426	4	US-08-528-026C-3	Sequence 3, Appli
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c	37	65.6	2.5	2307	4	US-09-489-039A-3960	Sequence 3960, Ap
c	38	56.8	2.2	571	4	US-09-257-894-16	Sequence 16, Appli
c	39	55.4	2.1	356	4	US-09-634-238-169	Sequence 169, App
c	40	45	1.7	2691	4	US-09-298-924-5	Sequence 5, Appli
c	41	43.2	1.7	1308	4	US-09-252-991A-8131	Sequence 8131, Ap
c	42	43.2	1.7	1701	4	US-09-252-991A-8109	Sequence 8109, Ap
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c	45	41.4	1.6	1404	1	US-08-204-656B-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-087-277-1
; Sequence 1, Application US/09087277B
; Patent No. 6169226
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamehid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT FILING DATE: 1998-05-29
; CURRENT APPLICATION NUMBER: US/09/087,277B
; EARLIER FILING DATE: 1996-11-28
; EARLIER APPLICATION NUMBER: PCT/SE96/01558
; EARLIER FILING DATE: 1996-11-28
; EARLIER APPLICATION NUMBER: SE 9504272-7
; EARLIER FILING DATE: 1995-11-29
; EARLIER APPLICATION NUMBER: SE 9601506-0
; EARLIER FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 3074
; TYPE: DNA
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:bell gene
; OTHER INFORMATION: (branching enzyme II) from Solanum tuberosum
; OTHER INFORMATION: (potato)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (189)..(2825)
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: (189)..(332)
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: (333)..(2825)
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (92)..(2156)
; OTHER INFORMATION: Nucleotides 92, 285, 1406, 1430, 1897 and 2156 are
; OTHER INFORMATION: n wherein n = A, C, G or T.
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (285)..(287)
; OTHER INFORMATION: Amino acid -16 is Xaa wherein Xaa = Ile, Leu, Val
; OTHER INFORMATION: or Phe.
; FEATURE:

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; NAME/KEY: misc feature
; LOCATION: (1404)..(1406)
; OTHER INFORMATION: Amino acid 358 is Xaa wherein Xaa = Leu or Phe.
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1428)..(1430)
; OTHER INFORMATION: Amino acid 366 is Xaa wherein Xaa = Thr.
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1896)..(1898)
; OTHER INFORMATION: Amino acid 522 is Xaa wherein Xaa = Tyr, Ser, Cys
; OTHER INFORMATION: or Phe.
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (2154)..(2156)
; OTHER INFORMATION: Amino acid 608 is Xaa wherein Xaa = Pro.
;
US-09-087-277-1

Query Match      53.4%; Score 1382.4; DB 3; Length 3074;
Best Local Similarity 76.6%; Pred. No. 0;
Matches 1689; Conservative 0; Mismatches 515; Indels 0; Gaps 0;

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QY 1547 GCTGTTCAATGATATGATTTCAATGGTCTCTTTCCAGAGGCTGTCAACATGGTGAAGATGT 1606
DB 1817 GCTGGTCAACGATCTTATTCATGGGCTTTTCCAGATGCAATTTACCATTTGGTGAAGATGT 1876
QY 1607 TAGTGAATGCCAACAGTTTTCATTCGGTTGAAAGATGGTGGTGGTGGTGGTGGTGGTGGTGG 1666
DB 1877 TAGCGGAATCCGACATTTTNTATTCCTCGTTTCAAGATGGGGGTGGTGGTGGTGGTGGTGG 1936
QY 1667 TCTCCACATGGCTGTCTGATTAATGGTGTGAGATTTTTCAGAAAGAGATGAAGATTTG 1726
DB 1937 GCTGCATATGCAATTTGCTGATTAATGATTTGATTTGCTCAAGAAACGGATGAGGATTTG 1996
QY 1727 GAAATCGGTGACATTTGATACATATGCTGACCAACAGCGGGTGGTGGAAAGTGTGTTTC 1786
DB 1997 GAGAGTGGTGTATTTCTTACATACACTGACAAATAGAAAGATGGTCCGAAAGTGTGTTTC 2056
QY 1787 TTATGCTGAAAGTCAATGACAGGCCCTTGTGTTGGTGAACAAACTATTTCGATTTTGGCTGAT 1846
DB 2057 ATACGCTGAAAGTCAATGATCAAGCTCTAGTGGGTGATAAACTATAGCATTTCTGGCTGAT 2116
QY 1847 GGACAAGGATATGATGACATTTCTGCTGTGACAGACCATCTACTCTCTCATAGATCG 1906
DB 2117 GGAGAGGATATGATTAATTTTATGGCTCTGGATAGACCTCAACATCATTAATAGATCG 2176
QY 1907 TGGAGTAGCATTTGCAAAAAATGATCAGGCTTTATTCATCGGATTTAGCGGAGAGGATA 1966
DB 2177 TGGGATAGCATTTGCACAAGATGATTAGGCTTTGTAATCTATGGGATTTAGGAGGAGAGGTA 2236
QY 1967 TTTGAAATTTTATGGGAAATGAAATTTTGACACCCCGAGTGGATTTTCCCAAGAGGTGA 2026
DB 2237 CCTAAATTTTATGGGAAATGAAATTTCCGCCACCTCGAGTGGATTTTCCCTCGGGCTGA 2296
QY 2027 TCTACATCTTCCCAAGTGGTAAATTTGTTTCTTGGGAACAAATTTACAGTTTATGATAAATGCCG 2086
DB 2297 ACAACACTCTCTGATGGCTCAGTAATTTCCCGGAAACCAATTTAGTTTATGATAATGCAG 2356
QY 2087 GCGTAGGTTTGAATCTAGGCAATTCAAAGCATCTCAGATATCATATGGAATGCAAGAGTTTGA 2146
DB 2357 ACGGAGATTTGACCTGGGAGATGCAAGATATTTAAGATACCGTGGGTTCGAAGAAATTTGA 2416
QY 2147 TCAAGCAATTCAGCATCTTGAGAGGCTTATGGTTTCTTCACTGCTGAGCACCAATATCAT 2206
DB 2417 CCGGGCTATGCGATGATCTTGAAGATAAATATGAGTTTATGACTTTCAGAAACCAAGTTTCT 2476
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QY 1187 TAAAGCTCACAGTTAGGCTCTTCTGTTCTCATGATATGTTCTCATGCCATGATCAAC 1246
DB 1457 TAAAGCTCATGAGCTAGGAATGTTGTTCTCATGACATGTTCTCACGCCATGATCAA 1516
QY 1247 TAAATACGTTGGATGGGCTGAATATGTTGATGGTACGGATGGTCACTACTTCTCTGG 1306
DB 1517 TAAATACGTTGGATGGGCTGAATATGTTGATGGTACGGATGGTCACTACTTCTCTGG 1576
QY 1307 ACCACGGGTCATCATTTGGATGGGACTCTCGCTTTTCAACTATGGGACTGGAGGT 1366
DB 1577 AGCTCGTGGTTATCATTTGGATGGGATTCGGCTCTTTAACTATGGAACTGGAGGT 1636
QY 1367 TCTAAGGTTTCTCTTTCAAAATGCAAGGTGGTGGATCAGTACAAAGTTTGAATGGTT 1426
DB 1637 ACTTAGGTATCTTCTCTCAAAATGCGAGATGGTGGATGAGTTCAAAATTTGATGAT 1696
QY 1427 CAGATTTGATGGGCTGACTTCAATGATGTACACCCATCATGGATTCAGAGTATTTAC 1486
DB 1697 TAGATTTGATGGTGGACATCAATGATGTATCTCACCAAGGATTTATCGGTGGATTCAC 1756
QY 1487 CGGCACATCAATGATATCTTTGGATATGCAACTGATAGATGCTGTGGTTATTTGAT 1546
DB 1757 TGGGAACCTACGAGGAATCTTTGGACTCGCACTGATGTGATGCTGTGTGATCTGAT 1816
QY 1547 GCTGTTGAATGATATGATTCATGTTCTCTCCAGAGGCTGTCACCATTTGTTGAAGATGT 1606
DB 1817 GCTGTTCAACGATCTTATTCATGGCTTTTCCAGATGCAATACCATTTGTTGAAGATGT 1876
QY 1607 TAGTGAATGCCAAGATTTGATTTCCGGTTGAAGATGGTGGTGGCTTTGATTTATCG 1666
DB 1877 TAGCGAATCGGACATTTTATTTCCCGTTCAAGATGGGGTGTGGCTTTGACTATCG 1936
QY 1667 TCTCACATGGCTGTGCTGATTAATGGTTGAGATTAATTCAGAGAGAGATGAATGG 1726
DB 1937 GCTGCATATGCAATTTGCTGATAATGATTTGATTTGCTCAAGAACCGGATGAGGATG 1996
QY 1727 GAAATGGTGACATTTGATATGCTCACCAAGGGGGTGGTTGGAAGATGTGTTTC 1786
DB 1997 GAGAGTGGTGATTTGTTCTATCACTGCAAAATAGAGATGGTTCGGAAGATGTGTTTC 2056
QY 1787 TTATGCTGAAAGTCAATGACAGGCTTTGTTGGTGACAAAATCTATGTCATTTGGCTGAT 1846
DB 2057 ATACGCTGAAAGTCAATGATCAAGCTCTAGTCGGTGATAAACTATAGCATTTCTGGCTGAT 2116
QY 1847 GGAAGAGATATGATGATCTTATGCTTTGACAGACCATCTACTCTCTCATAGATCG 1906
DB 2117 GGAGAAGGATATGATGATTTTATGGCTCTGGATAGACCNATCAACATCATTAATAGATCG 2176
QY 1907 TGGAGTACATTCGACAAAATGATCAGGCTTATTACCATGGATTTAGCGGAGAGGATA 1966
DB 2177 TGGGATAGCATTTGCAAGATGATTTAGGCTTTGTAATGAGATTTAGGAGAGAGGATA 2236
QY 1967 TTTGAAATTTTATGGGAAATGAATTTGGAACCCCGAGTGGATGATTTTCAAGAGGTGA 2026
DB 2237 CCTAAATTTTATGGGAAATGAATTTGCGGCAACCTGAGTGGATGATTTTCCCTAGGGCTGA 2296
QY 2027 TCTACATCTTCCAGTGGTAAATTTGTTCTCGGGAACAAATTCAGTTATGATTAATGCG 2086
DB 2297 ACAACACCTCTCTGATGGCTCAGTAAATTTCCGGAAACCAATTCAGTTATGATTAATGCG 2356
QY 2087 GGTAGGTTTGTATCTAGGCAATTTCAAGCATCTGAGATATCATGGAATGCAAGAGTTTGA 2146
DB 2357 ACGGAGATTTGACCTGGAGATGCAAGATATTTAGATACCGTGGGTTGCAAGATTTGA 2416
QY 2147 TCAAGCAATTCAGCATCTTGAAGAGCCCTATGTTTTCATGATCTTCTAGGACCCAAATCAT 2206
DB 2417 CGGGCTATGCAATCTTGAAGATAAATATGATTTATGATCTTCAAGAACCCAGATTCAT 2476
QY 2207 ATCAGGAGGATGAAGGGATCGATCATTTGCTTTCGAGAGGGGAAACCTCGTTTGT 2266
DB 2477 ATCAGGAGGATGAAGGATGATGATTTGTAATTTGAAAAGGAAACCTAGTTTTGT 2536
QY 2267 ATTCAATTTTTCATGGACTAGCAGCTATTTCCGATTTACCGAGTTGCTGCTTAAAGCCAGG 2326

DB 2537 CTTTAAATTTTCACTGGACAAAAGCTATTTCAGACTATCGCATAGGCTGCCTGAAGCCTGG 2596
QY 2327 AAAGTACAAGATAGTCTTGGATTCAGATGATCTTTGTTGGAGGCTTTGGCAGGCTTAG 2386
DB 2597 AAAATACAAGGTTGCCCTTGGACTCAGATGATCCACTTTTTTGGTGGCTTCGGGAGAAATGA 2656
QY 2387 TCATGATGACAGACACTTCAGCTTTTGAAGGTTGTTAGATAAACCGGCTTCGATCCTTCAT 2446
DB 2657 TCATAATGCCGAATATTTTCACTTTGAAGATGGTATGATGATGCTCTCTGTTCAATAT 2716
QY 2447 GGTGTACACACCATGTAGAACAGCAGTGGTCTATGCTTTTATGTTGAGGATCAAGTGGAGAA 2506
DB 2717 GGTGTATGACCTAGTAGAACAGCAGTGGTCTTATGCACTAGTAGACAAAGAGAAAGA 2776
QY 2507 TGAATGGAACTGTGCTGCCGGTTAAGATATATCTTAACAACAGG 2550
DB 2777 AGAAGAGAAAGTAGCAGTAGTAGAAGAAAGTAGTAGAAGAAAG 2820

RESULT 3
US-09-731-166-11
; Sequence 11, Application US/09731166
; Patent No. 6639126
; GENERAL INFORMATION:
; APPLICANT: Sewalt, Vincent J. H.
; APPLICANT: Singletary, George W.
; TITLE OF INVENTION: Production of Modified Polysaccharides
; FILE REFERENCE: 35718/206348
; CURRENT APPLICATION NUMBER: US/09/731.166
; CURRENT FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: 60/169,993
; PRIOR FILING DATE: 1999-12-06
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 2720
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: SBE11b
; OTHER INFORMATION: Genbank Accession No. 6639126 AF072725
; NAME/KEY: CDS
; LOCATION: (101)...(2500)
US-09-731-166-11

Query Match 48.6%; Score 1256.6; DB 4; Length 2720;
Best Local Similarity 75.6%; Pred. No. 0;
Matches 1559; Conservative 0; Mismatches 504; Indels 0; Gaps 0;

QY 430 TTCCTCCACCCGGCAGAGGGCAAGAAATATATGACATAGATCCAGCTTGACAGGCTTTC 489
DB 435 TCCCCCACCACCAAGCGATGAGCAAAAAATATTTCCAGATTGACCCCATGTTGCCAAGCTATA 494
QY 490 GTCAACACCTAGATTACCGGTATTTCAGATACAAAAGACTCCGAGAGAAATTCACAAGT 549
DB 495 AGTACCATTCTTGGATGATCGGTACAGCTCTATAGAGAAATCCGTTTACAGATTTGATGAC 554
QY 550 ATGAAGGTAGTCTGGATGCAATTTTTCGTGGCTATGAAAAGTTTGGTTTCTCACCGAGTG 609
DB 555 ATGAAGGAGGCTTGAAGCCTTCTCCGCTAGTTATGAGAAGTTTGGATTTAATCGCAGCG 614
QY 610 AAACAGGAATACTTATAGAGATGGGCAACAGAGCTACGTGGGCTGCATTGATTGGAG 669
DB 615 CGGAAGGTATCATAATCGAAGATGGGCTCTCGGAGCATTTTCTGCGACATTTGGTGGGTG 674
QY 670 ATTTTCAATTAATCTGGAATCCCTAAATGCGATGTCTGATCTCAGAAATGAGTGTGGTCTGGG 729
DB 675 ACTTCAACAACCTGGATCCAAATGCGATCGTATGACAAAATGAGTTTGGTGTGGG 734
QY 730 AGATCTTTTTCGGAATAATGCGAGATGGTTTCAACCAATTTCCCATTTCTCGAGTAA 789

Db 735 AAATTTTCTGCTTAACATGAGATGGTACATCACTATTCTCATGGATCTGTGTA 794
Qy 790 AGATAGCATGATGATCTCACTCTGGCAACAAGATCTTATCTCTCTGGATCAAGTTCT 849
Db 795 AGGTGAGATGATGATCTCACTCAGGATTAAGGATTTCAATTCAGCCCTGGATCAAGTACT 854
Qy 850 CAGTTCAAGCACAGGTGAATCCCATATAATGGCATATACATATGATCTCTCCGAGGAGG 909
Db 855 CAGTCAGGCCCCAGAGAAATACCATATGATGGATTTATATGATCTCTGAGAGG 914
Qy 910 AGAAGTATGTTTCAAAAATCTCAGCCAAAGAGACCAAAATCACTCTCGAATTTAAGT 969
Db 915 TAAAGTATGTTTCAAGCATGCGCAACCTTAACAGCAAAATCAATTCGGATATAGAA 974
Qy 970 CGCAGTTGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1029
Db 975 CACATGTCGGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1034
Qy 1030 ATGTGCTTCTCGCATCAAAAAGCTTGGCTACAATGCTGTTGATGATGATGATGATGATG 1089
Db 1035 AAGTCTCCAGAAATAAAAAATTTGGATACAATGCGATGCAATATGCAATCCAG 1094
Qy 1090 AGCATTCATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1149
Db 1095 AGCATTCATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1154
Qy 1150 GATTTGGAACTCTCATGATTTAAAGTCTCTTAATAGATAAGCTCAAGTATGATGATG 1209
Db 1155 GTTTTGGTACCCAGAAATTTGAAGTCTTTGATGATGATGATGATGATGATGATGATG 1214
Qy 1210 TTGTTCTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1269
Db 1215 TAGTTCTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1274
Qy 1270 TGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1329
Db 1275 GTTTTGGTACAGATACATATGATGATGATGATGATGATGATGATGATGATGATG 1334
Qy 1330 GGGATCTCGCTTTTCAACTATGGAGCTGGAGGTTCTAAGGTTTCTTCTTCAAAATG 1389
Db 1335 GGGATCTCGCTTTTCAACTATGGAGCTGGAGGTTTCTAAGGTTTCTTCTTCAAAATG 1394
Qy 1390 CAAAGTGTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1449
Db 1395 CTAGATGTTGCTCGAGNAATAGTTTGGTTTCCGTTTGAATGATGATGATGATGATG 1454
Qy 1450 TGATGTACACCATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1509
Db 1455 TGATGTACACTCATCAGCAATTAAGTAATGATGATGATGATGATGATGATGATGATG 1514
Qy 1510 GATATGCAACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1569
Db 1515 GCTTTGCCACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1574
Qy 1570 GTCTCTTCCAGAGCTGTCACTATGTTGATGATGATGATGATGATGATGATGATGATG 1629
Db 1575 GACTTTATCTGAGCTGTCACTATGTTGATGATGATGATGATGATGATGATGATGATG 1634
Qy 1630 TTCGGTTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1689
Db 1635 TTCTCTGTTCAAGTGTGGGTAGGTTTGAATGATGATGATGATGATGATGATGATGATG 1694
Qy 1690 AATGGTTGAGATTTTCAAGAGAGATGATGATGATGATGATGATGATGATGATGATGAT 1749
Db 1695 AATGGATTTGACCTTCTCAAGCAAGATGATGATGATGATGATGATGATGATGATGATG 1754
Qy 1750 TGCTGACCAACAGGGGTTGGTGAAGTGTGTTTCTTATGCTGAAAGTCAATGACAGG 1809
Db 1755 CACTGACCAATAGAGGTTGGTGAAGTGTGTTTCTTATGCTGAAAGTCAATGATCAAG 1814
Qy 1810 CCCTTGTGGTGACAAAATCTATGATGATGATGATGATGATGATGATGATGATGATGAT 1869

Db 1815 CATTAGTCGGCGCAAGCAAGATATTGGTTTGGTTGATGACAGGATATGATGATTTCA 1874
Qy 1870 TGGCTCTTGACAGACCATCTACTCTCTAGATGATGATGATGATGATGATGATGATGATG 1929
Db 1875 TGGCCCTCGATAGACCTTCAACTCTCACTGATGATGATGATGATGATGATGATGATG 1934
Qy 1930 TCAGGCTTATTACCATGGGATTAGCGGAGAGGATATTGAAATTTTATGGGAATGAAT 1989
Db 1935 TTAGACTTATCACAATGGTTTAGGAGGAGGGCTATCTTAAATTTATGGGAATGAT 1994
Qy 1990 TTGACACCCCGAGTGGATTTTCCAGAGGATGATGATGATGATGATGATGATGATGATG 2049
Db 1995 TTGACATCTCTGAATGATGATTTTCCAGAGGTTCCGCAAGAGCTTCCAAAGTGGTAA 2054
Qy 2050 TTGTTCTCGGAAACAATTTACAGTTATGATAAATCCGCGTAGTGTGATCTAGGCAAT 2109
Db 2055 TTATTCAGGNAATACACAGTTTATGACAAATGTCTGGAAGATTTGACCTGGGTGATG 2114
Qy 2110 CAAAGCATCTGAGATATCATGGAATGCAAGAGTTTGTATCAAGCAATTCAGCATCTTGA 2169
Db 2115 CAGACTATCTTAGGTATCATGGTATGCAAGAGTTTGTATCAGGCAATGCAACATCTTGA 2174
Qy 2170 AAGCTATGTTTCTGATGATCTGAGCACCAATATATATCAGGAGGATGAAAGGATC 2229
Db 2175 AAAAAATATGAATTCATGACATCTGATCACCAGTATATTTCCCGGAAACATGAGGAG 2234
Qy 2230 GGATCATTTGCTTCGAGAGGGGAAACCTCGTTTTTGTATTCATTTTCTTGGACTAGCA 2289
Db 2235 AGGTGATTTGTTTCCGAAAGGAGATTTGGTATTTTGTTCATCTTCACTTCCACTGCA 2294
Qy 2290 GCTATTCGGATTTACCGAGTTGGCTGCTTAAAGCCAGGAAAGTACAAGATAGTCTTGG 2349
Db 2295 GCTATTTTGTACTACCGTATTTGTTTGTGCAAGAGCTGGGGTGTATAAGGTGCTTGG 2354
Qy 2350 CAGATGATCTTTGTTTGGAGGCTTTTGGAGGCTTTAGTCATGATGATGATGATGATGATG 2409
Db 2355 CCGACGCTGGACTATTTTGGTGGATTTAGCAGGATCCATCAGCAGCCGAGCACTTCC 2414
Qy 2410 TTGAAGGCTGTGATGATAACCGGCTCGATCTTTCATGTTGATGATGATGATGATGATG 2469
Db 2415 CCGACTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2474
Qy 2470 CAGTGGCTATGCTTTTAGTGGAG 2492
Db 2475 GTGTGCTATGCTCCAGTGGAG 2497

RESULT 4

US-09-731-166-9
; Sequence 9, Application US/09731166
; Patent No. 6639126
; GENERAL INFORMATION:
; APPLICANT: Sewalt, Vincent J. H.
; APPLICANT: Singletary, George W.
; TITLE OF INVENTION: Production of Modified Polysaccharides
; FILE REFERENCE: 35718/206348
; CURRENT APPLICATION NUMBER: US/09/731,166
; PRIORITY FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: 60/169,993
; PRIORITY FILING DATE: 1999-12-06
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 2446
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: SBEIIa
; OTHER INFORMATION: Genbank Accession No. 6639126 U65948
; NAME/KEY: CDS
; LOCATION: (2)...(2446)

US-09-731-166-9

Query Match		48.4%;	Score 1251.8;	DB 4;	Length 2446;
Best Local Similarity		75.0%;	Pred. No. 0;		
Matches 1565;		Conservative 0;	Mismatches 522;	Indels 0;	Gaps 0;
Qy	417	AAACCAAGTCCATTTCCTCCACCGGAGAGGGCAAGAATATATGACATAGATCCCAAGC	476		
Db	356	AAACCAAGATTATCCCAACCAAGGAGATGGCAACGATATATGAGATTGACCCAAATG	415		
Qy	477	TTGACAGGCTTTCTGTCACACCTAGATTACCGGTATTCACAGTACAAAGAAGCTCCGAGAA	536		
Db	416	TTGGAAGGGTTTCGGGGTCACTTGGACTACCGATACAGTGAATATAAGAGATTACGTGCG	475		
Qy	537	GAATTTGACAGTATGAAGGTAGTCTGGATGCAATTTCTCGTGCGTATGAAGAAGTTTGGT	596		
Db	476	GCTATTGATCAACATGAAGGTGGTTTGGATGCAATTTTCAACGGGTACGAAAGCTTGGGA	535		
Qy	597	TTCTCACGCACTGAAACAGGAATAACTTATAGAGAGTGGGCACCAAGAGCTACGTGGGCT	656		
Db	536	TTTACTCGCAGCGCTGAAGGTATCACTTACAGAGATGGGCTCTCGAGCATACTCTGCA	595		
Qy	657	GCAATGATTGGAGATTTCAATPAACTGGAAATCCTAATGCAGATGTCATGACTCAGAATGAG	716		
Db	596	GCAATTAGTAGTGACTTCAACAACTGGAAACCAAACTGCTGATGCTATGGCCAGAGAAATGAG	655		
Qy	717	TGTGGTGTCTGGGAGATCTTTTGGCGNATTAATGCAGATGGTTCAACCACCAATTTCCCAT	776		
Db	656	TACGGCGTTTGGGAGATTTTCTCGCTAACAAATGCTGATGGTTCCCTGCTATTTCCCTCAT	715		
Qy	777	GGTTCTCGAGTAAAGATACGATAGGATCTCCATCTGGCAACAAAGATTCTTATTTCCCTGCT	836		
Db	716	GGCTCACGTGTAAGATACGATAGGATGACACACATCTGCTGTGTAAAGATTCCATTTCCCTGCC	775		
Qy	837	TGGAATCAAGTTCTCAGTTCAAGACCCAGGTGAATCCCATATATATGGCATATATCATGAT	896		
Db	776	TGGATCAAGTTTCTGTGCGGCTCCAGGTGAAATACCATCAACCGGTATATATATGAC	835		
Qy	897	CTTCCGAGGAGGAGATGATGTCTCAAAATCCTCAGCCAAAGAGACCAAAATCACTT	956		
Db	836	CCACTGAAGAGGAGAAATATGTATTCAAACACCCCTCAACCTCAAGCGGCCCAAGTCACTG	895		
Qy	957	CGGATTTATGATGTCGACGTTTGGATGAGTAGTAGTACGGAGCCAGTAATTAACACATATGCC	1016		
Db	896	CGGATATATGATCACATGTTTGGATGAGTAGCCGAGACCAAGATATAATATATGCT	955		
Qy	1017	AACTTTAGAGATGATGCTTCTCGCATCAAAAGCTTTGGCTCAATGCTGTTCAGCTC	1076		
Db	956	AACTTACAGATGAGGTGCTTCCAAGAAATTAAGAAAGCTTTGGATCAATGCAAGTACAGATA	1015		
Qy	1077	ATGGCTATTCAAGAGCATTCATATATATGCTAGTTTGGGTATCAGTCAACAACTTTTAT	1136		
Db	1016	ATGGCAATCCAGGAACACTCTTATATGCAAGCTTTGGGTACCATGTTTACGAATTTTTTT	1075		
Qy	1137	GCAGCTAGCAGCCGATTTTGGAACTCCTGATGATTTAAAGTCTCTAATAGATAAAGCTCAC	1196		
Db	1076	GCCCCAGTAGCCGTTTGGGACTCCAGAGACCTAATAATCTCTATTATGATAGCCGAT	1135		
Qy	1197	GAGTTAGGCTTCTTGTGTTCTCATGATATGTTTATAGCCATGCAATCAATACGTTG	1256		
Db	1136	GAGCTTGGCTTGTAGTGTATGATATTTGATAGTTCATATAGTTCATCAATAATACCTTG	1195		
Qy	1257	GATGGCTGAATATGTTTGAATGTTACGATGGTGTCTACTTTTCACTCTGGACACCGGGT	1316		
Db	1196	GATGGTTTGAATGGTTTTCGATGGCACCGATACATTAATCTTCCATGGTGGTCCAGAGGC	1255		
Qy	1317	CATCATTTGGATGTGGGACTCTCGCTTTTCAACTATAGGAGCTGGGAGTTTCTAAGSTTT	1376		
Db	1256	CATCATTTGATGTGGGATTTCTCGCTATTCAATTTATGGAGTTGGGAAGTTTTCAGATTT	1315		
Qy	1377	CTTCTTTCAATGCAAGTGGTGGTTTGGATGAGTACAAAGTTTGTATGGGTTGAGATTTGAT	1436		
Db	1316	CTATTGTCAAAATGCGAGATGGTGGCTTGAAGAAATATAAATTTGTATGGGTTTCGATTTGAT	1375		

Qy	1437	GGGTGACTTCAATGATGTACACCCATCATGGATTGCGGTAGATTTTACCGGCAACTAC	1496		
Db	1376	GGGTGACCTCCATGATGTATATCTCACCATGGATTACAGTGACATTCACCTGGGAATAT	1435		
Qy	1497	AATGAATACCTTTGGATATGCAACTGATGTAGATGCTGTGGTTTATTTTGTATGCTGTGAAT	1556		
Db	1436	GGCGAGTATTTTGGATTGCACTGATGTTGATGCACTAGTTTACCTTAATGCTGGTAAAC	1495		
Qy	1557	GATATGATTGATGCTCTTCCAGAGGCTGTCCCATTTGGTGAAGATGTTAGTGGAAATG	1616		
Db	1496	GATCTTATTTGCGGCTTATCCAGAAGCTGTATCCATTGCGCGAAGATGTACGCGGAATG	1555		
Qy	1617	CCAAAGTTTGCAATCCGGTTGAAGATGTTGGCTTGTGGCTTGTATATCGTCTCCACATG	1676		
Db	1556	CCTACATTTTGTATCCCTGTCCAGATGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT	1615		
Qy	1677	GCTGTTGCTGATAAATGGGTTGAGATTTATTCAGAAGAGAGATGAAGATTCGAAATCGGT	1736		
Db	1616	GCTGTCCAGACAAATGGAATTGAATTCGAAGCAAAAGTGACGAATATTGGGAATCGGT	1675		
Qy	1737	GACATTTGATATGCTGACCAACAGCGCGTGGTTGAAAAGTGTGTTTCTTATGCTGAA	1796		
Db	1676	GACATCGTGACACCTTAAACAAATAGAAAGTGGCTTGAAGAGTGTGTCACTTATTTGAA	1735		
Qy	1797	AGTCATGACCAAGCCCTTGTGTTGTGACAAAACATATTGCAATTTTGGCTGATGGACAAGAT	1856		
Db	1736	AGTCATGATCAGCTCTTGTGTTGTGACACAAATGCAATTCGTTGTTGATGGATAGGAT	1795		
Qy	1857	ATGTATGACTTCAATGGCTTTGACAGACCACTACTCTCTCATAGATCGTGGAGTAGCA	1916		
Db	1796	ATGTATGATTTCATGGCTCTGGACAGGCTTCAAGCGCTCGCATCGATCGTGGGATAGCA	1855		
Qy	1917	TTGCACAAATGATCAGGCTTATTAACATGGATTAGCGGAGAGAGATTTTGAATTTT	1976		
Db	1856	TTACATAAAATGATTAGGCTTGTCAAAATGGGTTTAGAGGTTGAAGGCTATCTAAATTTT	1915		
Qy	1977	ATGGAAATGAAATTTGGACACCCGAGTGGATGATTTTCCAAAGAGTGTATCTACATCTT	2036		
Db	1916	ATGGAAATGAGTTTGGCATCTCTGATGATAGATAGATTTTCCAGAGGCTCTCAAGTCTT	1975		
Qy	2037	CCAGTGGTAAATTTGTTCTCTGGAAACAAATTAACAGTTATGATAAATCCGCGGTAGGTTT	2096		
Db	1976	CCAAATGGCTCCGTCATTCTCTGGGAATAACAATAGCTTTGATAAATGCGCGGTAGATTT	2035		
Qy	2097	GATCTAGGCAATTCAAAGCATCTGAGATATCATGGATGCAAGTGTTCATCAAGCAATT	2156		
Db	2036	GACCTTGGAGATCAGATTTATCTTAGATATCGTGGTATGCAAGAGTTTGACCGCAATG	2095		
Qy	2157	CAGCATCTTCAAGAGGCTATGTTTTCATGACTTCTGAGCACCAATACATATACCGGAAG	2216		
Db	2096	CAGCACCTTGGGAAATATGAATTCATGACATCTGATCACTCATATGATCACGGAG	2155		
Qy	2217	GATGAAGGAGATCGGATCATTTGCTTCGAGAGGGGAAACCTCGTTTTTGTATTCATTTT	2276		
Db	2156	CATGAGGAGGATAAGGTGATCATCTTTGAGAGAGGAGATTTGGTCTTTCGTGTTCAACTTC	2215		
Qy	2277	CATTGGACTAGCATATTTCGGATTTACCGAGTTGGCTGCTTAAAGCCAGGAAGTACAAG	2336		
Db	2216	CATTGGAGCAATAGCTATTTTGGACTATCGCGTGGTGGTGGTGGTGGTGGTGGTGGTGGT	2275		
Qy	2337	ATAGTCTTTGGATTCAGATGATCTTTTGTGGAGGCTTTTGGCAGGCTTTAGTTCATGATGCA	2396		
Db	2276	ATCGTTTTAGATCTGACGATGGCTTTTTCGTGGATTTAGTCGCTTTGATCATGATGCC	2335		
Qy	2397	GAGCATCTCAGCTTTGAAGGGTGGTAGATAAACCGGCTCGATCTCTTCATGCTGATACACA	2456		
Db	2336	GAGTACTCTCATGCTGACCTGGCCGATGACAAACAGGCGGTGTTCTTTCTCGGCTATGCA	2395		
Qy	2457	CCATGTAGACACGAGTGTCTATGCTTTTGTAGTGAGGATGAAGTGA	2503		
Db	2396	CCAGCAGAAACAGCCGCTGATATATGCACTTGCAGGTCGAGGACGA	2442		

RESULT 5
US-09-257-894-1
; Sequence 1, Application US/09257894
; Patent No. 6376749
; GENERAL INFORMATION:
; APPLICANT: Broglie, Karen E.
; APPLICANT: Klein, Theodore M.
; APPLICANT: Hubbard, Natalie L.
; APPLICANT: Lightner, Jonathan E.
; TITLE OF INVENTION: No. 6376749el Starches via Modification of
; TITLE OF INVENTION: Expression of Starch Biosynthesis
; TITLE OF INVENTION: Enzyme Genes
; NUMBER OF SEQUENCES: 25
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E. I. du Pont de Nemours and Company
; STREET: 1007 Market Street
; CITY: Wilmington
; STATE: Delaware
; COUNTRY: USA
; ZIP: 19898
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: Microsoft Windows 95
; SOFTWARE: Version 7.0A
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/257,894
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/091,052
; FILING DATE: JUNE 10, 1998
; ATTORNEY/AGENT INFORMATION:
; NAME: Majarian, William R.
; REGISTRATION NUMBER: 41,173
; REFERENCE/DOCKET NUMBER: BB-1066-A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 302-992-4926
; TELEFAX: 302-773-0164
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2665 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 79..2476
US-09-257-894-1

Query Match 48.4%; Score 1251.8; DB 4; Length 2665;
Best Local Similarity 75.4%; Pred. No. 0;
Matches 1556; Conservative 0; Mismatches 507; Indels 0; Gaps 0;
QY 430 TTCTCCACCGGAGGCGGCAAGATATATGACATAGATCCAAAGCTTGACAGGCTTC 489
DB 413 TCCCCCACCAGCGATGACAAATATTTCCAGATTGACCCCATGTGCAAGCTATA 472
QY 490 GTCAACACCTAGATTACCGGTATTTCACAGTACAAAGATCCGAGAGAAATTCACAAGT 549
DB 473 AGTACCATTCTTGAGTATCGGTACAGCCTCTATAGAAGATCCGTTTCAGACATTGATGAC 532
QY 550 ATGAAGGTAGTCTGGATGCAATTTCTCGTGCTATGAAAGTTTGGTTTCTCAGCGATG 609
DB 533 ATGAAGGAGGCTTGGAAAGCTTCTCCCGTAGTTATGAGAAGTTTGGATTATGCCACGC 592
QY 610 AAACAGGAATAACTTATAGAGAGTGGGACCCAGGAGCTACGTGGGCTGCATTGATTGGAG 669
DB 593 CGGAGGATGATCACATATCGAAGTGGGCTCTCGAGCAATTTTCTGAGCATTTGGTGGTG 652
QY 670 ATTTCAATACTGGAATCCTAATGCAGATGTCTGACTCAGATGAGTGGTGTCTGGG 729

DB 653 ACTTCAACAACTGGGATCCAAATCGATCGATGAGCAAAATGAGTTGGTGTGGG 712
QY 730 AGATCTTTTTCGCGAATAATGCGATGGTTCACCAACCAATTCGCCATGGTTCGAGTAA 789
DB 713 AAATTTTTCGCGCTAAACAATGCGATGGTATACCTTATTCCTCATGGATCTCGTGAA 772
QY 790 AGATACGCGATGATCTCCATCTGGCAACAAAGATTCTATTCTCTGCTGGATCAAGTTCT 849
DB 773 AGGTGAGATGGATCTCCATCAGGATAAAGGATTCAATTCAGCGCTGGATCAAGTACT 832
QY 850 CAGTTCAAGCACCAAGGTGAATCCCATATATATGCGATATATGATGCTCTCCGAGGAG 909
DB 833 CAGTGCAGGCGCCAGGAGAAATACCATATGATGGATTATTTATGATGATCTCTCTGAAGAG 892
QY 910 AGAAGTATGTCTCAAAATCTTCAGCCAAAGACCAAAATCACTTCGGATTATGAGT 969
DB 893 TAAAGTATGTCTCAGGCATGCGCACTTAACACCAAAATCAATTCGGGATATGAAA 952
QY 970 CGCACGTTGGAATGAGTAGTACGGAGCCAGTAAATTAACACATATGCCAACTTTAGAGATG 1029
DB 953 CACATGTCGGNATGAGTAGCCCGGAACCGAAGATAAACAATATGTAATTTAGGGATG 1012
QY 1030 ATGTGCTTCTCGCATCAAAAGCTTGGCTACAATGCTGTTCAGCTCATGCTATTTCAAG 1089
DB 1013 AAGTCTCTCCCAAGAAATAAANAACCTTGGATACAATGCGATGCAAAATAATGCAATCCAAG 1072
QY 1090 AGCATTCATATATGCTAGTTTGGGTATCAGCTCACAAACTTTTATGCGAGTACGAGCC 1149
DB 1073 AGCACTCATATTTAGGAAGCTTTGGATACCATGTAACATAATTTTTCGCGCAAGTAGTC 1132
QY 1150 GATTTGGAAGCTCTGTGATGATTTAAAGTCTCTAATAGATAAAGCTCACAGTTAGTCTTC 1209
DB 1133 GTTTTGGTACCCAGAGATTTGAGTCTTTGATGATAGACACATGAGCTTGTTGC 1192
QY 1210 TTGTTCTCATGGATATTTGTTATAGCCATGATCACTCAACTAATACGTTGGATGGGCTGAATA 1269
DB 1193 TAGTTCTCATGGATGTGGTTTCATAGTATGCGTCAAGTAAATCTCTGATGGGTGAATG 1252
QY 1270 TGTGTTGATGTTAGCGATGGTTCACCTTCTGACCTGACCAACCGGGTCACTATGGATGT 1329
DB 1253 GTTTTGTGTTGATGATGATACATTTTACAGTGGTCCAGCGGGCCACCTGAGGATGT 1312
QY 1330 GGGACTCTCGCTTTTCAACTATGGGAGCTGGGAGGTTCTAAGGTTTCTCTTTCAAATG 1389
DB 1313 GGGATCTCGCTATTTAACTATGGGAACCTGGGAAGTTTAAAGATTCTCTCTCCAATG 1372
QY 1390 CAAGGTGGTGGTGGATGATGATCAAGTTTATGAGTTTCAAGTTGATGGGTTGACTTCAA 1449
DB 1373 CTAGATGGTGGTCTGAGGAATAAAGTTTGTGTTTCCGTTTGTGATGGTGTGACCTCCA 1432
QY 1450 TGATGTACACCCATCATGGATTGCGAGGTAGATTTTACCGGCAACTACAATGAATACTTTG 1509
DB 1433 TGATGTACATCCACCGGATTAACAGTAACTTTACGGGGAACTTCAATGAGTATTTTG 1492
QY 1510 GATATGCAACTGATGTAGATGCTGTGGTTTATTTGATGCTGTGGAATGATGATTCATG 1569
DB 1493 GCTTGTCCACCGATGATGATGCGTGGTTTACTTGTGCTGGTAAATGATCTAATTCATG 1552
QY 1570 GTCTTTTCCAGAGGCTGTCACTATGGGTGAAGATGTTAGTGAATGCCAACAGTTTGCA 1629
DB 1553 GACTTTATCTCGAGGCTGTAAACCATTTGGTGAAGATGTTAGTGAATGCCATACATTTGCC 1612
QY 1630 TTCCGGTTGAAGATGGTGGTGTGGCTTTCATTTATCGTCTCCACATCGCTGTGCTGATA 1689
DB 1613 TTCTGTTCAGATGGTGGGTTAGTTTGAATATCGGATGCTATGGCTGTGCTGACA 1672
QY 1690 AATGGGTTGAGATTATTCAGAGAGATCAAGATTGGAATAATGGGTGCAATTGTACATA 1749
DB 1673 AATGGATTGACCTTCTCAACCAAGTATGAGAACTTGAAGATGGGTGATATTTGTGACA 1732
QY 1750 TGCTGACCAACAGCGGCTGTGGAAAGTGTGTTCTTATGCTGAAAGTCAATGACGAG 1809

Db 1733 CACTGACAAATAGGAGGTGGTTAGAGAGTGTGTAACTTATGCTGAAAGTCATCATCAAG 1792
Qy 1810 CCCTTGTGGTGCACAAACTATTGCAATTTTGGCTGATGGACAAGGATATGTGACTTCA 1869
Db 1793 CATTAAGTCGGGACAAAGACTATTGGTTTGGTTGATGGACAAGGATATGTGACTTCA 1852
Qy 1870 TGGCTCTTGCAGACCACTACTCTCTCTCATAGATCGTGGAGTAGCATTCGCACAAATGA 1929
Db 1853 TGGCCCTCGATAGACCTTCACTCTCACCATTGATCGTGGATAGCATTAATGAATGA 1912
Qy 1930 TCAGGCTTATTAACCATGGGATTAAGCGGAGAGGATATTGCAATTTTATGGGAATGAAT 1989
Db 1913 TTAGACTTATCACAATGGGTTTAGGAGGAGGGGCTATCTTAAATTTTCATGGAATGAGT 1972
Qy 1990 TTGGNACCCCGAGTGGATTCATTTTCCAAAGGTGATCTACATCTTCCAGTGGTAAT 2049
Db 1973 TTGGACATCTTGAATGGATAGATTTCGAAGGTCGCAAGACTTCCAAAGTGGTAAT 2032
Qy 2050 TTGTTCTCTGGGAAACAATTACAGTTATGATAAATGCCGCGTAGGTTTGTATAGGCAATT 2109
Db 2033 TTATTCAGGGANPAACAAGTATTGACAAATGTGTCGAAGATTGACCTGGGTGATG 2092
Qy 2110 CAAAGCATCTGAGATATCATGGAATGCAAGAGTTTGTATCAAGCAATTCAGCATCTTGAAG 2169
Db 2093 CAGACTATCTTAGGTATCATGTTATGCAAGAGTTTGTATCAGGCAATGCAACATCTTGAGC 2152
Qy 2170 AAGCTATGTTTCATGACTTCTGAGCACCAATACATATCAGGAGGATGAAAGGATC 2229
Db 2153 AAAAATATGAATTCATGACATCTGATCACCAGTATATTTCGCGAAACATGAGGAGGATA 2212
Qy 2230 GGATCATTTGTTTCGAGAGGGAAACCTCGTTTGTATTCAAATTTTCAATTTGACTAGCA 2289
Db 2213 AGGTGATTTGTTTCGAAAAGGAGATTTGGTATTTGTGTTCACTTCACCTGCACACACA 2272
Qy 2290 GCTATTCGATTAACCGATTTGGCTGCTTAAAGCCAGGAAAGTACAAAGATGCTTGGATT 2349
Db 2273 GCTATTTGACTACCGTATGTTGTTGCGAAAGCCTGGGGTGTATAAGGTGCTTTGGACT 2332
Qy 2350 CAGATGATCTTTGTTTGGAGGCTTGGCAGGCTTAGTCATGATCGAGACATTCAGCT 2409
Db 2333 CGAGCTGAGACTATTTGGTGATTTAGCAGATCCATCAGCGAGCCGAGCATTCCAGC 2392
Qy 2410 TTGAAGGCTGGTACGATTAACCGGCTCGATCCTTCATGTTGTACACACCATGTAGAACAG 2469
Db 2393 CCGACTGTTGCGATGATTAAGCCATATTATCTCTCGTTTATACACCAAGCAGAACAT 2452
Qy 2470 CAGTGGTCTATGCTTTAGTGGAG 2492
Db 2453 GTGCTGCTATGCTCCAGTGGAG 2475

RESULT 6

US-08-941-445A-14
; Sequence 14, Application US/08941445A
; Patent No. 6107060
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; APPLICANT: Guan, Hanping
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
; STREET: 5370 Manhattan Circle
; CITY: Boulder
; STATE: CO
; COUNTRY: US
; ZIP: 80303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/941,445A
; FILING DATE: 30-SEP-1997
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/026,855
; FILING DATE: 30-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Winner, Ellen P
; REGISTRATION NUMBER: 28,547
; REFERENCE/DOCKET NUMBER: 89-97
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 499-8080
; TELEFAX: (303) 499-8089
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2725 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: mRNA
; HYPOTHEetical: NO
; ORIGINAL SOURCE:
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: sig_peptide
; LOCATION: 91..264
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 265..2487
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 91..2490
; US-08-941-445A-14

Query Match 48.4%; Score 1251.8; DB 3; Length 2725;

Best Local Similarity 75.4%; Pred. No. 0;
Matches 1556; Conservative 0; Mismatches 507; Indels 0; Gaps 0;

Qy 430 TTCTCCACCGGCGAGAGGCAAGAAATATATGACATAGATCCAAAGCTTCACAGGCTTTC 489
Db 425 TCCCCCACCACAGGATGGACAAAATATATCCAGATTGACCCCATGTTGCNAGGCTATA 484
Qy 490 GTCAACACCTAGATTACCGGTATTTCACAGTACAAAAGACTCCGAGAGAAATTTGACAAGT 549
Db 485 AGTACCATTCTTGAGTATCGGTACAGCCTCTATAGAAGATCCGTTACAGACATTGATGAAC 544
Qy 550 ATGAGGTAGTCTGGATGCAATTTCTCGTGGCTATGAAAGTTTGGTTTCTCAGCAGTG 609
Db 545 ATGAAGGAGGCTTGGAAAGCCTTCTCCGTTAGTTATGAGAAAGTTTGGATTTAATCCAGCG 604
Qy 610 AAACAGGAATAACTTATAGAGAGTGGGCACAGGAGCTAGCTGGGCTGCATTGATTGGAG 669
Db 605 CGNAGGTATCAGATATCGAGATGGGCTCTGGAGCATTTTCTGACAGCATTTGGTGGTG 664
Qy 670 ATTTCAATAAATCGAATCCTTAATGACAGATGTCACTAGATCTCAGAAATGATGGTGTCTGGG 729
Db 665 ACGTCAACAACCTGGATCCAAATGCAGATCGTATGAGCAAAAATGAGTTTGGTGTGGG 724
Qy 730 AGATCTTTTGGCGAATAATGCAGATGGTTTCCACCAGTTCACCAATTTCCCATGTTCTCGAGTAA 789
Db 725 AAATTTTCTGCTTAACAATGAGATGATACCTATTTCTTCATGGATCTCGTGTA 784
Qy 790 AGATACGATGATACCTCCATCTGGCAACAAAGATTTCTATTTCTGCTGGATCAAGTTCT 849
Db 785 AGGTGAGATGGATCTCCATCAGGATTAAGGATTCATTCAGGCTGGATCAAGTACT 844
Qy 850 CAGTTCAAGCACCAAGGTGAATCTCCCATATAATGSCATATATGATGATCTCTCCAGGAGG 909
Db 845 CAGTGCAGGCCCCCAGGAGAAATACCATATGATGGGATTTTATATGATCTCTCTGAAGAGG 904
Qy 910 AAGATATGTTTCAAAAATCCCTCAGCCAAAGACCAAAATCACTTCGATTTTATGAT 969
Db 905 TAAAGTATGTTTCCAGGCTGGCGCACTTAACACCAAAATCACTTCGGGATATATGAA 964

QY 970 CGCAGCTTGGAAATGAGTAGTACCGAGCCAGTAATTAACACATATATCCCAACTTTTAGAGATG 1029
DB 965 CACATGTCGGAAATGAGTAGTACCGAGCCAGTAATTAACACATATATCCCAACTTTTAGAGATG 1024
QY 1030 ATGTCCTTCCCGCAATCAAAAAGCTTGGCTACAATGCTGTTCAGCTCATGCTATTCGAAG 1089
DB 1025 AAGTCTCCCAAGAAATAAAAACTTGGATACAATGCGAGTGCMAATAATGGCAATCCCAAG 1084
QY 1090 AGCATTTCATATATCTAGTTTGGTATCAGTCAACAACTTTTATCGACTAGCAGCC 1149
DB 1085 AGCATTTCATATATGGAAGCTTGGATACCATGTAACAACTTTTGGCCCAAGTAGTC 1144
QY 1150 GATTTGGAACTCCTCATGATTTAAAGTCTCTAATAGATAAAGCTCACGAGTTAGTCTTTC 1209
DB 1145 GTTTTGGTACCCAGAAATTTGAAGTCTTTGATTTAGTAGACCATGAGCTTGGTTGC 1204
QY 1210 TTGTTCTCATAGATATTTGTCATAGCCATGCACTAACTAATACGTTGGATGGGCTGAATA 1269
DB 1205 TAGTCTCATGATGGTTCATAGTCTCATGCTCAAGTAATACTCTGGATGGGTTGAATG 1264
QY 1270 TGTTTGAATGAGGATGGTCACTACTTTTCACTCTGGACCAAGGGTCACTATGGAGTG 1329
DB 1265 GTTTTGGTATGAGATACATATTAATTTTCAAGTGGTCCAGTGGCCATCACTGGATGT 1324
QY 1330 GGGACTCTCGCCTTTTCAACTATGGAGCTGGGAGGTTCTAAGGTTTCTTTTCAAAATG 1389
DB 1325 GGGATTCGCTCTATTAATATGGAAGTGGGAGTTTGAAGATTTCTTCTCCAAATG 1384
QY 1390 CAAGTGGTGGTGGATGAGTACAAGTTTGAATGGGTTGAGTTTGAATGGGTTGATTTCAA 1449
DB 1385 CTAGATGGTGGTTCGAGGAATATAAGTTTGGTTCGTTTGGATGGTGGACCTCCA 1444
QY 1450 TGATGTACACCCATCATGGATGACAGTAGATTTTACCGGCAACTACAAATGAATTTTG 1509
DB 1445 TGATGTACACTCACCCAGGATTTACAAGTAACATTTTACCGGGAACCTTCAATGAGTATTTTG 1504
QY 1510 GATATGCAACTGATGATGATGCTGTGGTATTATTTGATGCTGTGGTGAATGATGATTCATG 1569
DB 1505 GCTTTGCCACCGATGATGATGATGCTGTGGTATTATTTGATGCTGTGGTGAATGATTCATG 1564
QY 1570 GTCTCTTCCCGAGAGCTGTCACTATGTTGGAAGATGTTAGTGGAAATGCAACAGTTTGA 1629
DB 1565 GACTTTATCTCGAGGCTGTAACTTGGTGAAGATGTTAGTGGAAATGCTTACATTTGGCC 1624
QY 1630 TTCCGGTTGAAGATGGTGGTGTGCTTTGATTAATCGTCTCCACATGCTGTGCTGATA 1689
DB 1625 TTCTCTGTTCCAGATGGTGGGTPAGTGTGACTATCGGATGCATATGCTGTGCTGACA 1684
QY 1690 AATGGTTTGAGATTTATCAGAAAGAGATGAAGATTTGGAATGGGTGACATTTGTACATA 1749
DB 1685 AATGAATTGACCTTCTCAAGCAAGATGATGAACCTTGGAGATGGGTGATTTGTGACA 1744
QY 1750 TGCTGACCAACAGCGGTGGTTGGAAAGTGTGTTTCTTATGCTGAAAGTCAATGACCAAG 1809
DB 1745 CACTGACAAATAGGAGGTGGTTAGAGAAGTGTGAACCTTATGCTGAAAGTCAATGATCAAG 1804
QY 1810 CCCTTGTGGTGACAAAATATGCTATGCTATGCTGATGACGACAGATATGATGACTTCA 1869
DB 1805 CATTAGTCCGGACAAAGACTATGGCTTTGGTTGATGGCAAGGATATGATGATTTCA 1864
QY 1870 TGGCTCTTGACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCATTTGACAAAATGA 1929
DB 1865 TGGCCCTCGATAGACTTCACTCTCTCATAGATCGTGGAGTAGCATTTGATAGATGA 1924
QY 1930 TCAGGCTTTATACCATGGGATTTAGCGGAGAGGATATTTGAATTTTATGGAAATGAAT 1989
DB 1925 TTAGACTTTATCAATGGGTTTATGAGGAGAGGGCTATCTTTAAATTTTATGGAAATGAGT 1984
QY 1990 TTGGACACCCGAGTGGATTTGATTTTCCAGAGGTGATCTAGATCTTCCAGTGGTAAAT 2049
DB 1985 TTGGACATCTCGAATGGATAGATTTTCCAGAGGTCCGCAAGACTTCCAAAGTGGTAAAT 2044

QY 2050 TTGTTCTCGGAAACAATTTACAGTTTATGATAAATCCCGCGTAGGTTTGTATCTAGGCAATT 2109
DB 2045 TTATTTCCAGGGAATAACAACAGTTTATGACAAATGTCGTCGAAGATTTTGACCTGGGTGATG 2104
QY 2110 CAAAGCATCTGAGATATCATGGAATGCAAGAGTTTGTATCAAGCAATTTGAGCATCTTGAAG 2169
DB 2105 CAGACTATCTTAGGTATCATGGTATGCAAGAGTTTGTATCAGGCAATGCAACATCTTGAGC 2164
QY 2170 AAGCCTATGTTTTCATGACTTTCGAGCACCATAATACATATACGGAAGATGAAAGGATC 2229
DB 2165 AAAAATATGAATTCATGACATCTGATCACCAGTATATTTCCCGGAAACATGAGGAGATA 2224
QY 2230 GGATCATTTGCTTCGAGAGGGGAAACCTCGTTTTGTTATTTCAATTTTCAATTTGACTAGCA 2289
DB 2225 AGGTGATTTGTTTCGAAAAGGGAGATTTGGTATTTGTTTCAACTTCCACTGCAACAACA 2284
QY 2290 GCTATTCGGATATCCGAGTTGGCTGCTTAAAGCCAGGAAGATACAGATAGTCTTGGATT 2349
DB 2285 GCTATTTTGAATAACCGTATTTGGTTGTCGNAAGCCCTGGGGTGATATAGGTGGTCTTGGACT 2344
QY 2350 CAGATGATCTCTTTGTTGGAGGCTTTTGGCAGGCTTTAGTCTATGATGACAGACACTTCAGCT 2409
DB 2345 CCGAGCTGGAATATTTGGTGGATTTAGCAGGATCCATCAGCAGCCGAGCACTTCACCG 2404
QY 2410 TTGAAGGTGTGATCAGATAACCGCCTCGATCTCTTTCATGTTGTATACACACCATGTAGAACAG 2469
DB 2405 CCGACTGTTCCGATGATAATAGGCCATATTTCACTTCTCGGTTTATACACCAAGCAGAACAT 2464
QY 2470 CAGTGGTCTATGCTTTTAGTGGAG 2492
DB 2465 GTGTGCTATGCTTCCAGTGGAG 2487

RESULT 7

US-09-609-040-3
; Sequence 3, Application US/09609040
; Patent No. 6570066
; GENERAL INFORMATION:
; APPLICANT: Willmitzer, et al.
; TITLE OF INVENTION: NUCLEOTIDE SEQUENCES ENCODING ENZYMES THAT ALTER THE CARBOHYDRATE
; FILE OF INVENTION: CONCENTRATION AND COMPOSITION IN PLANTS
; FILE REFERENCE: 514413-3515.1
; CURRENT APPLICATION NUMBER: US/09/609,040
; CURRENT FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: PCT/BP92/00302
; PRIOR FILING DATE: 1992-02-11
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 3
; LENGTH: 2853
; TYPE: DNA
; ORGANISM: Triticum aestivum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (313)..(2499)
; OTHER INFORMATION: BRANCHING ENZYME
US-09-609-040-3

Query Match 48.1%; Score 1245.2; DB 4; Length 2853;
Best Local Similarity 74.9%; Pred. No. 0;
Matches 1559; Conservative 0; Mismatches 523; Indels 0; Gaps 0;
QY 417 AAACCAAGGTCCATTCCTCCACCGCAGAGGGCAAGAATATATGATAGATCCCAAGC 476
DB 424 AAACCGGAGTGTGCCAAAACCCAGGAGATGGGCGAATAATATACGAGATTGACCCCAACA 483
QY 477 TTGACAGGCTTTCGTCAAACACCTAGATTACCGGTATTTCACAGTACAAAAGACTCCGAGAA 536
DB 484 CTGAAAGATTTTCGAGCCCATCTTGACTACCGATACCGCAATACAGAGAATTCGTGCT 543
QY 537 GAAATTGCAAGTATGAAGGTAGTCTGGATGCAATTTCTCGTGGCTATGAAAAGTTGGT 596
DB 544 GCTATTGACCAACATGAAGGTGGATTGGAAGCACTTTTCTCGTGGTTATGAAAAGCTTGG 603

QY 597 TTCTCAGCAGTGAACACAGGAATAACTTATAGAGAGTGGGCACACAGAGCTACGTTGGCT 656
DB 604 TTATCCCGAGTGTGAAGGTATCACTTACCGAGAAAGGGCTCTCTGGAGCGCATTTGCA 663
QY 657 GCATTGATTGAGATTTCAATAACTGGAACTCTAATGCAGATGTCTGACTCAGAAATGAG 716
DB 664 GCATTAGTAGTGACTTCAACAATTTGGAATCCAAATGCAGATGCTATGACCCAGAGATGAT 723
QY 717 TGTGGTGTCTGGAGATCTTTTGGCGGAATAATGCAGATGTTTCAACCAAAATTCGCCAT 776
DB 724 TATGGTGTTTGGAGATTTTCTCCCTAAACACGCTGATGGATCCTCAGCTATTCTCAT 783
QY 777 GGTCTCCAGTAAGATAGCATGATGATCTCCATCTGSCAAACAAGATTCTATTCTGCT 836
DB 784 GGCTCACGTGTAAAGATACGAGATGATCTCATCCGGTGTGAAGATTCAATTTCTGCT 843
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DB 844 TGGATCAAGTCTCTGTGCAGCTCCAGGTGAATACCTTTCAATGGCATATATATGAT 903
QY 897 CCTCCGAGGAGGAGATGATGTTTCAAAATCTCTAGCCAAAGAGACCAAAATCACTT 956
DB 904 CCACCTGAAGAGGAGAGATGATGTTTCAACATCTCTCAACCTAAACGACAGAGTCACTA 963
QY 957 CGGATTTATGATGTCGACGTTTGGAAATGATGATGACGAGCCAGTAATTAACACATATGCC 1016
DB 964 AGGATTTATGATACACATTTGGAAATGAGCAGCCGGAACCAAGATTAATTCATATGCT 1023
QY 1017 AACTTTAGAGATGATGCTCTCTCGCATCAAAAGCTTTGGCTACAATGCTGTTTCAAGCTC 1076
DB 1024 AATTTAGGATGAGTGTTCGCAAGATTTAAAGGCTTTGGATCAATGCAATGACAGATA 1083
QY 1077 ATGGCTATTCAAGACCATTAATATGCTAGTTTGGGTATCAGCTCACAACCTTTTAT 1136
DB 1084 ATGGCAATCCAGGAGCATTTCACTATGCAAGCTTTGGGTACCAATGTTTACTAATTTT 1143
QY 1137 GCAGCTACAGCCGATTTGGAACTCTCATGATTTAAAGTCTCTAAATAGATAAAGCTCAC 1196
DB 1144 GCACCAAGTAGCCGTTTGGAACTCCAGAGACTTAAATCCTTGATCGATAGAGCAT 1203
QY 1197 GAGTTAGCTCTCTGTTCTCATGATATGTTTCAAGCCATGATCAATCAATGCTGTTG 1256
DB 1204 GAGCTGTTGTTGTTGTTTATGATGATTTGTTTATGATGATTTGTTTCAATTAATACCTT 1263
QY 1257 GATGGCTGAATATGTTTATGATGATGATGATGATGATGATGATGATGATGATGATG 1316
DB 1264 GACGTTTGAATGTTTCCGATGGCACTGATACACATTAATTTCCAGGTTGTTCCAGCGGC 1323
QY 1317 CATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1376
DB 1324 CATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1383
QY 1377 CTCTTTTCAAAATGCAAGTGGTGGTGGATGATGATGATGATGATGATGATGATGATGAT 1436
DB 1384 TTACTGTCAAAACGAGATGTTGGCTTGAAGATATATATTTTATGATGATTTGATTTGAT 1443
QY 1437 GGGGTGACTTCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1496
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QY 1497 AATGAATACTTTGGATATGCAACTGATGATGATGATGATGATGATGATGATGATGATGAT 1556
DB 1504 GCGGATATTTGGATTTGCTACTGATGATGATGATGATGATGATGATGATGATGATGATG 1563
QY 1557 GATATGATTCATGTTCTCTTCCAGAGCTGTCAACATTTGGTGAAGATGTTTATGTTGAATG 1616
DB 1564 GATCTAAATTCAGGATTTATCTCTGATGATGATGATGATGATGATGATGATGATGATGAT 1623
QY 1617 CCAACAGTTTGCATTCGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1676
DB 1624 CCTACATTTGATCCCTGTTCCAGATGATGATGATGATGATGATGATGATGATGATGATGAT 1683

QY 1677 GCTGTTGCTGATAAATGGTGTGAGATTTATTCAGAAGAGAGATGAAGATTCGAAATCGGT 1736
DB 1684 GCTGTAGCAGATAAATGGATTTGAATCTCTCAAGCAAAAGTGACGAATCTTGGAAATCGGC 1743
QY 1737 GACATTTGTAATATGCTGACCAACAGCGGTGGTGGAAAGTGTGTTTCTTATGCTGAA 1796
DB 1744 GATATTTGTGCACACCCCTAAACAAATAAAGGTGGCTTGAAGTGTGTAACTTATGCAAA 1803
QY 1797 AGTCATGACACAGCGCTTGTGGTGACAAATCTTATTCATTTTGGCTGATGGACAAGAT 1856
DB 1804 AGTCATGATCAAGACACTAGTTGGTGACAGACTATTCATCTCTGTTGATGGATAGAT 1863
QY 1857 ATGTATGACTTCTATGCTCTTGAACAGACCACTCTCTCTCATAGATCGTGGAGTAGCA 1916
DB 1864 ATGTATGATTTCTATGCTCTTGAATAGGCTTCAACTCTCGCATGATCGTGGCATAGCA 1923
QY 1917 TTGCACAAATGATCAGGCTTTATTCATGGGATTTAGCGGAGAGAGATATTTGAATTTT 1976
DB 1924 TTACATAAAATGATCAGGCTTGTCAACATGGGTGTAGGTGGTGAAGCTATCTTAACCTT 1983
QY 1977 ATGGAAATCAATTTGGACACCCCGAGTGATTTTCCAAAGAGGTGATCTACATCTT 2036
DB 1984 ATGGAAATGAGTTTGGGCTCTCTGATGGATAGATTTTCCAAAGAGGCCACAACTCTT 2043
QY 2037 CCCAGTGGTAAATTTGTTCTCTGGGAAACAATTTACAGTTTATGATAAATGCCCGGTAGT 2096
DB 2044 CCAACCGCAAGTCTCTCCCTGGAAATAACAATAATTTATGATAAATGCTCCGCGGTAGATTT 2103
QY 2097 GATCTAGGCAATTTCAAGCAATCTGAGATATCATGGAATGCAAGAGTTTGTATCAAGCAAT 2156
DB 2104 GATCTTGGAGATGCAAAATTTCTTAGATATCGTGGTATGCAAGAGTTTCTGATCAGGCAATG 2163
QY 2157 CAGCATCTTCAAGAAGCTATGTTTCTGACCTTCTGAGCACCACCAATACATATCACGGAAG 2216
DB 2164 CAGCATCTTCAAGAAGATGATGTTTCTGAGCACCACCAATGATGATGATGATGATGATGAT 2223
QY 2217 GATGAAAGGATCGGATCATTTGTTCTCGAGAGGGAAACCTCGTTTGTATTCATCAATTT 2276
DB 2224 CATGAGGAAGATAAGGTGATCATCTTCTGAAAGAGGAGATTTGGTATTTGTTTCAACTTC 2283
QY 2277 CATGGACTAGCACTATTCGGATTTACCGATTTGGCTTTAAAGCCAGGAAAGTACAAG 2336
DB 2284 CACTGGAGCAATAGCTTTTGTGATCTACCGTGTGGGTGTTCCCAAGCCTGGGAAGTACAAG 2343
QY 2337 ATAGCTTTGATTCAGATGATCTTTTGTGGAGGCTTTTGGCAGGCTTTAGTCATGATGCA 2396
DB 2344 GTGGCTTTGACTCTCGAGATGATCTTTTGGTGGATTCAGAGGCTTTGATCATGATGTC 2403
QY 2397 GAGCATTTCAAGCTTTGAAGGGTGGTACGATAACCGGCTCGATCTCTTTCATGTTGATACA 2456
DB 2404 GACTACTTCAACCCGAAACATCCGATGACACAGGCGCGCTCTTTCTCGGTGTACACT 2463
QY 2457 CCATGTAGACAGCAGTGGTCTATGCTTTTAGTGGAGGATGAA 2498
DB 2464 CCGAGCAAGATCGGTCGTGTATGCCCTTTACAGAGTAAGAA 2505

RESULT 8

US-09-257-894-9
; Sequence 9, Application US/09257894
; Patent No. 6376749

GENERAL INFORMATION:

; APPLICANT: Broglie, Karen E.
; APPLICANT: Klein, Theodore M.
; APPLICANT: Hubbard, Natalie L.
; APPLICANT: Lightner, Jonathan E.
; TITLE OF INVENTION: No. 6376749el Starches via Modification of
; TITLE OF INVENTION: Expression of Starch Biosynthesis
; TITLE OF INVENTION: Enzyme Genes
; NUMBER OF SEQUENCES: 25
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E. I. du Pont de Nemours and Company
; STREET: 1007 Market Street

CITY: Wilmington
STATE: Delaware
COUNTRY: USA
ZIP: 19898
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: Microsoft Windows 95
SOFTWARE: Version 7.0A
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/257,894
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/091,052
FILING DATE: JUNE 10, 1998
ATTORNEY/AGENT INFORMATION:
NAME: Majarian, William R.
REGISTRATION NUMBER: 41,173
REFERENCE/DOCKET NUMBER: BB-1066-A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 302-992-4926
TELEFAX: 302-773-0164
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 2087 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-09-257-894-9

Query Match 42.4%; Score 1097; DB 4; Length 2087;
Best Local Similarity 76.6%; Pred. No. 0;
Matches 1343; Conservative 0; Mismatches 410; Indels 0; Gaps 0;

QY	430	TTCTCCACCCGCGAGAGGCAAGATATATGACATAGATCCAAAGCTTGACAGGCTTTC	489
Db	335	TCCCCCACCACGATGACAAAATAATCCAGATTGACCCCATGTTGCAAGGCTATA	394
QY	490	GTCACACCTAGATTACGGATTATCACAGTACAAAGACTCCGAGAAAGAAATGCAAGT	549
Db	395	AGTACCATCTTGAGTATCGGTACAGCCTCTATAGAAGAAATCCGTTTCAGACATTTGATGAAC	454
QY	550	ATGAGGAGTCTCGATGCTATTTCTCGTGGCTATGAAAGTTTGGTTTTCACGACGTG	609
Db	455	ATGAAGGAGGCTTGAAGCCCTTCTCCCGTAGTTATGAGAAGTTTGGATTATATGCCAGG	514
QY	610	AAACAGGAATTAATATAGAGATGGGACAGGAGCTACGTGGGCTGCAATTGATGGAG	669
Db	515	CGGAAGGTATACATATCGAATGGGCTCTGGAGCATTTCTGCAGCATTTGGTGGTG	574
QY	670	ATTTCAATTAACGGAATCTTAATGAGATGTCATGACTCAGATGAGTGTGGTGTCTGGG	729
Db	575	ACTTCAACAACTGGGATCCAAATGAGATCGTATGAGCAAAATGAGTTTGGTGTGGG	634
QY	730	AGATCTTTTTCGGAATATGAGATGTTTACACCAATTCCTCCCATGTTCTCGAGTAA	789
Db	635	AAATTTTCTGCTAACATGAGATGGTACATCACTATTCCTCATGGATCTCGTGTA	694
QY	790	AGATACGATGATGATCTCCATCTGGCAACAAAGATTCTATTCTCTCTGGATCAAGTTCT	849
Db	695	AGGTGAGATGATGATCTCCATCAGGATTAAGGATTCAATTCAGCCTGGATCAAGTACT	754
QY	850	CAGTTCAAGCACGAGTGAATCTCCCATATATATGAGCATATATATGATCCTCCCGAGGAG	909
Db	755	CAGTGCAGGCCCCAGGAGAAATACCATATGATGAGGATTTATATGATCCTCTCGAAGAGG	814
QY	910	AGAAGTATCTGTTCAAAATCTTCAGCCAAAGAGACCAAAATCACTTCGGATTATGAGT	969
Db	815	TAAAGTATGTTTCAGGATGCGCAACCTAAACGACCAAAATCAATTGCGGATATATGAA	874
QY	970	CGCAGCTTGGATGAGTAGTAGCGGAGCCAGTAAATTAACACATATATGCCAACTTTAGAGATG	1029

Db	875	CACATGTCGGAATGAGTAGCCCGGAACCGAAGATAAAACACATATGTAACTTTAGGATG	934
QY	1030	ATGTGCTTCCTCGCATCAAAAAGCTTGGCTACAAATGCTGTTCAGCTCATGCTATTCAG	1089
Db	935	AAGTCTCTCCCAAGAAATAAAAAAATCTTGGATACAAATGCAAGTCAAAATATGCAATCCAA	994
QY	1090	AGCAATCATATATGCTAGTTTTCGGGTATCAGTCAAAAATCTTTATGTCAGCTAGCAGCC	1149
Db	995	AGCACTCATATATGGAAGCTTTGGATACCAATGTAATTAATTTTTCGCGCAAGTAGTC	1054
QY	1150	GATTGGAACTCTCGATGATTTAAAGTCTCTAATAGATAAAAGCTCACAGGTTAGGTCTTC	1209
Db	1055	GTTTTGGTACCCAGAAAGATTGAAGTCTTTGATTGATAGACACATGAGCTTGGTTGC	1114
QY	1210	TTGTTCTCATGGATATTTTCATAGCCATGATCAACTTAATACGTTGGATGGGCTGATA	1269
Db	1115	TAGTTCTCATGGATGTTGTTTCATAGTCAATGCTCAAGTAAATTAATCTGGATGGGTTGAATG	1174
QY	1270	TGTTTGATGGTACCGATGGTCACTACTTCTACTCTGGACCAACGGGGTCACTATTTGGATGT	1329
Db	1175	GTTTTGATGGTACAGATACACATTTACTTTTACAGTGGTCCAGTGGCCATCACTGGATGT	1234
QY	1330	GGGACTCTCGCTTTTCAACTATGGGAGCTGGAGGTTCTAAAGGTTTCTTCTTTCAATG	1389
Db	1235	GGGATTTCTCGCTATTTAACTATGGGAACTGGGAAGTTTAAAGATTTCTTCTCTCCAATG	1294
QY	1390	CAAGTGGTGGTGGATGAGTACAAAGTTTGAATGAGTTTTCAGATTTTGGATGGGCTGCTCAA	1449
Db	1295	CTAGATGGTGGCTCGAGGAATATAAGTTTGAATGATTTTCCGTTTGGATGGTGGACCTCCA	1354
QY	1450	TGATGTACACCCATCATGGATTGCGAGTGTAGATTTTACCGGCACTACAATGAATCTTTG	1509
Db	1355	TGATGTACATCCACCGGATTAAGTAAATTAATTTACGGGAATTTCAATGAGTATTTTG	1414
QY	1510	GATATGCAACTGATGTAGATGCTGTGTTTATTTGATGCTGTGTTGAATGATATGATCATG	1569
Db	1415	GCTTTGCCACCGATGTAGATGCGTGTACTTTGATGCTGGTAAATGATCTAATTCATG	1474
QY	1570	GTCTCTTCCAGAGGCTGTCACCATTTGGTGAAGATGTTAGTGAATGCCACAGTTTGA	1629
Db	1475	GACTTTATCTCGAGGCTGTAACTTGGTGAAGATGTTAGTGAATGCCATCATTTGCC	1534
QY	1630	TTCCGGTTGAAGTGGTGGTGTGCTTGTATGATTCGTCTCCACATGCTGCTGTCTGATA	1689
Db	1535	TTCTGTTTCAAGTGGTGGGTTAGTGTGTTGATCGATGTCATATGGCTGTGCTGACA	1594
QY	1690	AATGGTTGAGATTTATTCAGAAAGAGATGAAGATTTGGAATAATGGGTGACATTTGACATA	1749
Db	1595	AATGGAATGACCTTCTCAAGCAAAAGTGTAACTTGGAAAGTGGTGAATTTGTGCACA	1654
QY	1750	TGCTGACCAACAGCGGCTGGTGGAAAGTGTGTTCTTATGCTGGAAGTCAATGACCAAG	1809
Db	1655	CACGTGCAAAATAGAGGTTGGTATAGAAAGTGTGTAATGCTGGAAGTCAATGATCAAG	1714
QY	1810	CCCTTGTGGTGAACAAATATTTGCAATTTTGGCTGTAGTGAACAGGATATGATGACTTCA	1869
Db	1715	CATTAGTTCGCGCAACAGCATTTTGGTGTGATGGAAGGATATGATGATTTCA	1774
QY	1870	TGGCTCTTGACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCATTTGCAAAAATGA	1929
Db	1775	TGGCCCTCGATAGACCTTCAACTCCTACCATTTGATCGTGGATAGCATTAATGAATGA	1834
QY	1930	TCAGGCTTTTACCATGGATTAGCGGAGAGGATATTTGAATTTTATGGGAATGAT	1989
Db	1835	TTAGACTTATCACAATGGGTTTAGGAGGAGGCTATCTTAATTTTATGGAATGAGT	1894
QY	1990	TTGGACACCCCGAGTGGATTTTTCAGAGGTTGATCTACATCTTTCCAGTGGTAAAT	2049
Db	1895	TTGGACATCTGATGATGATGATTTTCCAGAGGTTCCGCAAGACTTCCAGTGGTAAAT	1954
QY	2050	TTGTTCTCTGGGAAACAAATTACAGTTATGATAAATCCCGCGGTAGGTTTGTATCTAGGCAATT	2109


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QY 1690 AATGGGTTGAGATTATTTCAGAGAGAGATGAAGATTGGAAAAATGGGTGACATTTGTACATA 1749
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
493 AATGATTGACCTTCTCAAGCAAGATGATGAACCTTGGAGATGGGTGATTTGTGCACA 434
QY 1750 TGCTGACCAACAGCGGTGGTGGAAAAAGTGTGTTCTTATGCTGAAAGTCATGACCAGG 1809
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
433 CACTGACAAATAGGAGGTGGTTAGAGAAAGTGTAACTTATGCTGAAAGTCATGATCAAG 374
QY 1810 CCCTTGTGGTGACAAAACTATTGGCATTTTGGCTGATGGACAAAGATATGATGACTTCA 1869
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
373 CATTAGTCGGCACAAGACTATGGCTTTTGGTTGATGGACAAGGATATGTAATGATTCA 314
QY 1870 TGGCTCTTGCACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCAITTCACAAAATGA 1929
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
313 TGGCCCTCGATAGACCTTCACTCTTACCATTGATCGTGGGATAGCAITTCACATAGATGA 254
QY 1930 TCAGGCTTATTACCATGGGATTAGCGGAGAGAGGATATTTGAATTTTATGGGAATGAAT 1989
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
253 TTAGACTTATCAATAGGTTTGGAGGAGAGGCTATCTTAATTTTCATGGGAATGAGT 194
QY 1990 TTGGACACCCGAGTGGATTGATTTTCCAAGAGGTGATCATCTTCCAGTGGTAAAT 2049
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
193 TTGGACATCTCTGAAATGGATAGATTTTCCAAGAGGTCCGCAAGACTTCCAAAGTGGTAAAT 134
QY 2050 TTGTTCTCTGGGAACAAATTACAGTTATGATAAATGCGCGGTAGGTTTGTCTTAGGCAATT 2109
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
133 TTATTTCCAGGAATAACAACAGTTATGACAAATGTCGTCGAAGATTTGACCTGGGTGATG 74
QY 2110 CAAAGCATCTGATATCATGAAATGCAAGAGTTTGTATCAAGCAATTCAGCATTTGAGG 2169
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
73 CAGACTATCTTAGGTATCATGTATGCAAGAGTTTGTATCAGGCAATGCAACATCTTGAGC 14
QY 2170 AAGCTATGTTT 2182
Db || ||||| ||
13 AAAAAATATGAATT 1
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RESULT 10
US-09-087-277-3
; Sequence 3, Application US/09087277B
; Patent No. 6169226
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/09/087, 277B
; CURRENT FILING DATE: 1998-05-29
; EARLIER APPLICATION NUMBER: PCT/SE96/01558
; EARLIER FILING DATE: 1996-11-28
; EARLIER APPLICATION NUMBER: SE 9504272-7
; EARLIER FILING DATE: 1995-11-29
; EARLIER APPLICATION NUMBER: SE 9601506-0
; EARLIER FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 1393
; TYPE: DNA
; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism:beII gene fragment
; OTHER INFORMATION: (branching enzyme II) from Solanum tuberosum
; OTHER INFORMATION: (potato)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (2)..(1393)
; FEATURE:
; NAME/KEY: misc_feature

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; LOCATION: (424)..(1150)  
; OTHER INFORMATION: Nucleotides 424, 891 and 1150 are n wherein n = A,  
; FEATURE: C, G or T.  
; NAME/KEY: misc_feature  
; LOCATION: (422)..(424)  
; OTHER INFORMATION: Amino acid 141 is Xaa wherein Xaa = Thr.  
; FEATURE:  
; NAME/KEY: misc_feature  
; LOCATION: (890)..(892)  
; OTHER INFORMATION: Amino acid 297 is Xaa wherein Xaa = Tyr, Ser, Cys  
; OTHER INFORMATION: or Phe.  
; NAME/KEY: misc_feature  
; LOCATION: (1148)..(1150)  
; OTHER INFORMATION: Amino acid 383 is Xaa wherein Xaa = Pro.  
US-09-087-277-3  
Query Match 36.6%; Score 947.4; DB 3; Length 1393;  
Best Local Similarity 79.9%; Pred. No. 1.7e-298;  
Matches 1113; Conservative 0; Mismatches 280; Indels 0; Gaps 0;  
QY 737 TTTCCGCAATATGCGATGTTTCCACCACCAATTTCCCATCGTTCCTCGAGTAAAGATACG 796  
Db 1 TCTGCCAAATATGATGGATGGTTCTCTCGCAATTTCTCATGGTCCAGAGTGAAGATACG 60  
QY 797 CATGGATCTCCATCTGGCAACAAAGATTCTATTCCTGCTTGGATCAAGTTCTCAAGTTCA 856  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
61 TATGGACACTCCATCAGGTGTTAAGATTCCATTCCTGCTTGGATCAACTACTCTTTACA 120  
QY 857 AGCACCGAGTGAACCTCCCATATAATGCGATATCTATGATCCTCCCGAGGAGGAAAGTA 916  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
121 GCTTCTGATGAAATTTCCATATATGGAATATATATGATCCACCCGAAGAGGAGGTA 180  
QY 917 TGTGTTCAAAATCTCTAGCCCAAGAGACCAAAATCACTTCGGATTTATGATGCGCAGT 976  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
181 TATCTTCCACACCCCGCCCAAAAGTTCGCTGAGAATATATGATATCTCATAT 240  
QY 977 TGGAAATGAGTAGTACGGAGCCAGTAAATTAAACACATATGCCAACTTTAGAGATGATGCT 1036  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
241 TGGAAATGAGTAGTCCGGAGCCATAAATTAATCACTCATCGTGAATTTTAGAGATGAAGTTCT 300  
QY 1037 TCCTCGCATCAAAAAGCTTGGCTACAATGCTGTTTCACTCATGCTATTTCAAGAGCATTC 1096  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
301 TCCTCGCATCAAAAAGCTTGGGTACAATGCGGTGCAAAATATATGCTATTTCAAGAGCATTC 360  
QY 1097 ATATTATGCTAGTTTGGGTATCAGTCACAAACTTTTATGCGAGTACGACCCGATTTGG 1156  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
361 TTATTATGCTAGTTTGGTTATCATGTACAAAATTTTTTTNGCACCAGCCGCTTTGA 420  
QY 1157 AACTCCTGATGATTTAAAGTCTCTAATAGATAAAAGCTCACGAGTTAGGTCTCTTTGTTCT 1216  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
421 AACNCCGACGACCTTAAGTCTTTGATGATGAAGCTCATGAGCTAGGAATTTGTTCT 480  
QY 1217 CATGGATATTGTTTCATAGCCATGCACTAAATACGTTGGATGGCTGGAATATGTTGA 1276  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
481 CATGGATATTGTTTCACAGCCATGCACTAAATATATCTTTAGATGAGCTGAACATGTTGA 540  
QY 1277 TGGTACGATGCTACTACTTTTCACTCTGGACCAAGGGGTCTCATTTGGATGTGGACTC 1336  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
541 CGGCACAGATAGTTGTTTACTTTTCACTCTGGAGCTCGTGGTTATCATTTGGATGTGGGATTC 600  
QY 1337 TCGCCTTTTCAACTATGAGGCTGGAGGTTCTAAGGTTTCTTTTCAAAATGCAAGTG 1396  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
601 CCGCCTCTTTTACATGGAAGCTGGAGGTTACTTTAGGTAUCTTCTCTCAAAATGCGAGATG 660  
QY 1397 GTGGTTGATGAGTACAAGTTTGTGTTTGTGAGTTTTCAGATTTTATGGGTGACTTCAATGATGA 1456  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
661 GTGGTTGATGAGTTCAAAATTTTGTGATTTAGATTTGATGTTGATGCTGCATCAATGATGA 720  
QY 1457 CACCATCATGGATTGAGGTAGATTTTACCGGCAACTACAAATGAATCTTTGATATGC 1516  
Db ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
721 TACTCACCACGGAATTATCGGTGGGATTTCACTGGGAAGTACGAGGAATACTTTTGGACTCGC 780
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Qy 1517 AACTGATGATGCTGCTGCTTTATTTCATGCTGTTGAATGATATGATTCATGCTCTCTT 1516
Db 781 AACTGATGATGCTGCTGCTTTATTTCATGCTGTTGAATGATATGATTCATGCTCTCTT 840
Qy 1577 CCCAGAGCTGTACCATTTGCTGAAGATGTTAGTGGAAATGCAACAGTTTCGATTCGGGT 1636
Db 841 CCCAGATGCAATTACCATTTGCTGAAGATGTTAGTGGAAATGCAACAGTTTCGATTCGGGT 900
Qy 1637 TGAAGATGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 1696
Db 901 TCAAGATGGGCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 960
Qy 1697 TGAGATTTTACAGAGAGATGAGATGAGATGAGATGAGATGAGATGAGATGAGATGAGATGAGAT 1756
Db 961 TGAGTTGCTCAAGAAACGGGATGAGATGAGATGAGATGAGATGAGATGAGATGAGATGAGAT 1020
Qy 1757 CAACAGGCGGTGGTGGGAAAGTGTGTTCTTATGCTGAAAGTCAATGACACAGGCGCTTGT 1816
Db 1021 AAATAGAAGATGCTCGGAAGATGTTTATACGCTGAAAGTCAATGACACAGGCTTAGT 1080
Qy 1817 TGGTGACAAAATATTTGATTTGGCTGATGGACAAAGATATGATGATGATGATGATGATGATGAT 1876
Db 1081 CGGTGATAAATATATGATTTGCTGATGGACAAAGATATGATGATGATGATGATGATGATGATGAT 1140
Qy 1877 TGACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCATTCACAAAATGATCAGGCT 1936
Db 1141 GGATAGACNTCAACATCATTAATAGATCGTGGAGTAGCATTCACAAAATGATCAGGCT 1200
Qy 1937 TATTACCATGGATTTAGCGGAGAGAGATATTTGAAATTTTATGGGAAATGAAATTTGGACA 1996
Db 1201 TGTAATATGGATTTAGGAGGAGAGGTCCTAAATTTTATGGGAAATGAAATTTGGACA 1260
Qy 1997 CCCCAGTGGATGATTTTCCAGAGTGATCTACATCTCCAGTGGTAAATTTGTTTC 2056
Db 1261 CCTCAGTGGATGATTTTCCAGTGGTAAACACACCTCTCTGATGCTCAGTAAATTC 1320
Qy 2057 TGGGACAAATACAGTATGATTAATCGCGGTAGGTTTCATCTAGGCAATTCAGGCA 2116
Db 1321 CGGAACCAATTCAGTATGATTAATCGAGACGGAGATTTGACCTGGGAGATGAGAAATA 1380
Qy 2117 TCTGAGATATCAT 2129
Db 1381 TTTAAGATACCGT 1393
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RESULT 11

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US-09-658-499-3
; Sequence 3, Application US/09658499
; Patent No. 6469231
; GENERAL INFORMATION:
; APPLICANT: EK, Bo
; APPLICANT: KHOSNOODI, Jamshid
; APPLICANT: LARSSON, Clas-Tomas
; APPLICANT: LARSSON, Hakan
; APPLICANT: RASK, Lars
; TITLE OF INVENTION: STARCH BRANCHING ENZYME II OF POTATO
; FILE REFERENCE: 003300-486
; CURRENT APPLICATION NUMBER: US/09/658,499
; CURRENT FILING DATE: 2000-09-08
; PRIOR APPLICATION NUMBER: 09/087,277
; PRIOR FILING DATE: 1998-05-29
; PRIOR APPLICATION NUMBER: PCT/SE96/01558
; PRIOR FILING DATE: 1996-11-28
; PRIOR APPLICATION NUMBER: SE 9504272-7
; PRIOR FILING DATE: 1995-11-29
; PRIOR APPLICATION NUMBER: SE 9601506-0
; PRIOR FILING DATE: 1996-04-19
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patencin Ver. 2.0
; SEQ ID NO 3
; LENGTH: 1393
; TYPE: DNA
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; ORGANISM: Unknown
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: bell gene fragment
; OTHER INFORMATION: (branching enzyme II) from Solanum tuberosum
; NAME/KEY: CDS
; LOCATION: (2)..(1393)
; NAME/KEY: misc feature
; LOCATION: (424)..(1150)
; OTHER INFORMATION: Nucleotides 424, 891 and 1150 are n wherein n = A,
; OTHER INFORMATION: C, G or T.
; NAME/KEY: misc feature
; LOCATION: (422)..(424)
; OTHER INFORMATION: Amino acid 141 is Xaa wherein Xaa = Thr.
; NAME/KEY: misc feature
; LOCATION: (890)..(892)
; OTHER INFORMATION: Amino acid 297 is Xaa wherein Xaa = Tyr, Ser, Cys
; OTHER INFORMATION: or Phe.
; NAME/KEY: misc feature
; LOCATION: (1148)..(1150)
; OTHER INFORMATION: Amino acid 383 is Xaa wherein Xaa = Pro.
; US-09-658-499-3
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Query Match 36.6%; Score 947.4; DB 4; Length 1393;
Best Local Similarity 79.9%; Pred. No. 1.7e-298;
Matches 1113; Conservative 0; Mismatches 280; Indels 0; Gaps 0;
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Qy 737 TTTGCCGAATAATGCAGATGTTCCACCACCAATTCCTCCATGGTCTCAGTAAGATACG 796
Db 1 TCTGCCAAATAATGTGGATGTTCTCTCGCAATTCCTCATGGTCCAGAGTGAAGATACG 60
Qy 797 CATGGATACCTCCATCTCGCAACAAAGATTCATTCTCTGCTTGGATCAAGTTCTCAGTTCA 856
Db 61 TATGGACATCCATCAGTGTAAAGATTCATCTCTGCTTGGATCAACTACTCTTTACA 120
Qy 857 AGCACCAAGTGAATCCCATATATATATGATGATGATGATGATGATGATGATGATGATGATGAT 916
Db 121 GCTTCCTGATGAAATTCATATATATGATGATGATGATGATGATGATGATGATGATGATGAT 180
Qy 917 TGTGTTCAAAAATCTCAGCAAGAGAGACCAAAATCACTTCGGATTTATGATGATGATGATGAT 976
Db 181 TATCTTCCAAACCCACCGCCCAAGAAACCAAAAGTCGCTGAGAATATATGAATCTCATAT 240
Qy 977 TGGAAATGAGTAGTACGAGGAGCAGTAATTAACACATATGCCAACTTTAGAGATGATGCT 1036
Db 241 TGGAAATGAGTAGTCCGAGGAGCTAAATTAATCACTAGTGAATTTAGAGATGATGATGAT 300
Qy 1037 TCCTCGCATCAAAAAGCTTGGCTTACAAATGCTGTTTACGTCATGCTTATTCAGAGCATTC 1096
Db 301 TCCTCGCATCAAAAAGCTTGGCTTACAAATGCTGCTGCAAAATTTATGGCTATTCAGAGCATTC 360
Qy 1097 ATATTATGCTAGTTTGGGTATCAGTCACAACTTTTATGACAGTACGAGCGGATTTGG 1156
Db 361 TTATTATGCTAGTTTGGGTATCAGTCACAAATTTTATGACAGTACGAGCGGATTTTGA 420
Qy 1157 AACTCCTGATGATTTAAAGTCTCTAATAGATAAAGCTCAGCAGTTAGGTTCTCTTCTTCT 1216
Db 421 AACNCCGACGACCTTAAGTCTTTGATGATAAAGCTCATGAGCTAGGAATTTGTTCT 480
Qy 1217 CATGGATATTTGTTATAGCCATGATCAATTAATACGTTGGATGGGCTGAATATGTTTGA 1276
Db 481 CATGGATATTTGTTTACAGCCATGATCAATTAATTAATTTAGATGGAATGGAATGTTTGA 540
Qy 1277 TGGTACGGATGGTCACTACTTTCATCTGACCAACCGGGTCACTCATTTGGATGTCGGGACTC 1336
Db 541 CGGCACAGATAGTTGTTTACTTTTCACTCTGGAGCTCGGTTTATCATTTGGATGTCGGGATTC 600
Qy 1337 TCGCTTTTCAACTATCGGAGCTGGGAGGTTCTAAGGTTTCTTCTTCAATGCAAGGTG 1396
Db 601 CCGCTCTTTAATCTATGGAACCTGGAGGTACTTAGGTATCTCTCTCAATGCGAGATG 660
Qy 1397 GTGTTTGGATGATGATCAAGTTTGTGTTGATGTTGATGTTGATGTTGATGTTGATGTTGATGTT 1456
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Db 661 GTGGTTGGATGATGTTCAAAATTTGATGGATTTAGATTTTCATGGTGTGACATCAATGATGTA 720
Qy 1457 CACCCATCATGATTCAGGTTAGATTTTACCGGCACTACATGAATGAATCTTTGGATATGC 1516
Db 721 TACTCACACGATTTATCGTGGGATTCACCTGGGAACCTACGAGGATATCTTTGACTGCG 780
Qy 1517 AACTGATGTAGATGCTGTGGTTTATTGATGCTGTGGAATGATGATTCATGCTCTT 1576
Db 781 AACTGATGTAGATGCTGTGGTTTATTGATGCTGTGGAATGATGATTCATGCTCTT 840
Qy 1577 CCCAGAGCTGTCCACATTTGGTGAAGATTTAGTGAATGCAACAGTTTGCATTCGGT 1636
Db 841 CCCAGATGCAATACCATTTGGTGAAGATTTAGCGGAATGCGCATTTTATTCCTCCGT 900
Qy 1637 TGAAGATGCTGTGGTTTGGCTTTGATTTATGCTCTCCACATGGCTGTGCTGATTAATGGT 1696
Db 901 TCAAGATGGGTTTGGCTTTGACTATCGGCTGATATGGCAATTTGCTGATTAATGGAT 960
Qy 1697 TGAGATTTATCAGAAAGAGATGAAGATTTGAAATTTGGGTGACATTTGATATGCTGAC 1756
Db 961 TGAGTTGCTCAAGAAACCGGATGAGGATTTGGAGAGTGGGTGATATTTGTCACACTGAC 1020
Qy 1757 CAACAGGCGGTGGTGGAAAGTGTCTTATATGCTGAAAGTCAAGACAGGCGCTGT 1816
Db 1021 AAATAGAAGATGGTGGAAAGTGTCTTATATGCTGAAAGTCAAGCTCATGATCAAGCTTAGT 1080
Qy 1817 TGGTGACAAACTATTGCAATTTGGCTGATGGACAAGGATATGATGACTTTCATGGCTCT 1876
Db 1081 CGGTGATTAACATATAGCATTTCTGCTGATGGACAAGGATATGATGATTTTATGGCTCT 1140
Qy 1877 TGACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCATTTGCAACAAATGATCAGGCT 1936
Db 1141 GGATAGACCATCAACATCATTAATAGATCGTGGGATAGCATTTGCAACAGATGATTAGGCT 1200
Qy 1937 TATTACCATGGATTTAGCGGAGAGGATATTTGAAATTTATGGAATATGGAATTTGGACA 1996
Db 1201 TGTAACTATGGATTTAGGAGGAGAGGATGCTTAAATTTTCATGGGAATGAATTCGGCCA 1260
Qy 1997 CCCCAGTGGATTTGATTTTCAAGAGGTGATCTACATCTTCCAGTGTGTAATTTGTTCC 2056
Db 1261 CCTGATGATTTGATTTTCCCTAGGCTGAAACACCTCTCTGATGCTCAGTAATTC 1320
Qy 2057 TGGGAACAATTACGATTTATGATAAATGCCGGGTAGGTTGATCTAGGCAATTCAAAGCA 2116
Db 1321 CGGAACCAATTCAGTTATGATAAATGACAGCGGAGATTTGACCTGGGAGATGCAAGATA 1380
Qy 2117 TCTGATATCAT 2129
Db 1381 TTTAAGATACCGT 1393

RESULT 12
US-09-731-166-13
; Sequence 13, Application US/09731166
; Patent No. 6639126
; GENERAL INFORMATION:
; APPLICANT: Sewalt, Vincent J. H.
; APPLICANT: Singletary, George W.
; TITLE OF INVENTION: Production of Modified Polysaccharides
; FILE REFERENCE: 35718/206348
; CURRENT APPLICATION NUMBER: US/09/731,166
; CURRENT FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: 60/169,993
; PRIOR FILING DATE: 1999-12-06
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13
; LENGTH: 2470
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)

; OTHER INFORMATION: SBFI -- Genbank Accession No. 6639126 217959
; NAME/KEY: CDS
; LOCATION: (2)...(2470)
US-09-731-166-13

Query Match 24.5%; Score 633.4; DB 4; Length 2470;
Best Local Similarity 59.9%; Pred. No. 8.3e-196;
Matches 1179; Conservative 0; Mismatches 736; Indels 54; Gaps 5;

Qy 456 ATATATCACATAGATCCAAAGCTTCACAGGCTTTTCGTCAACACCTAGATTACCGGTATTTCA 515
Db 251 ATATACAGCTTGGACCCCAAGCTGGAGATATTCAGGACCAATTCAGGTACCGGATGAAA 310
Qy 516 CAGTACAAAAGACTCCGAGAGAAATTCACAAGTATGAAGGTAGTCTGGATGCAATTTTCT 575
Db 311 AGATTCTTAGAGCAGAAAGGATCAATTTGAAGAAATGAGGAACTCTTGAATCTTTTCT 370
Qy 576 CGTGGCTATGAAAAGTTTGGTTTCTCAGCGAGTGAACAGGAATACTATAGAGATGG 635
Db 371 AAAGGCTATTTGAAATTTGGGATTTAATACAAATGAGGATGGAACCTGTATATCGTGAATGG 430
Qy 636 GCACACGAGCTACGTGGGCTGCATTCATTGGAGATTTCAATACTGGAATCCTTAATGCA 695
Db 431 GCACCTCTGGCAGGAGGACAGCTTATTGGTACCTTCAATGACTGGAATGGTGCAAAC 490
Qy 696 GATGTCATGACTCAGAAATGAGTGTGTCTGGGAGATCTTTTTCGCGAATAAATTCAGAT 755
Db 491 CATAAGATGGAAGGATAAATTTGGTGTTCGATCAAAAT--TGACCATGTGCAAA 547
Qy 756 GGTTCACCAACAATTCCTCCATGGTTCTCGAGTAAAGATACGCATGGATCTCCATCTGGC 815
Db 548 GGGAAACCTGCCATCCCTCAATTTCAAGGTTAAATTTTCGCTTTTACATGTTGGAGTA 607
Qy 816 AACAAAGATTTCTATTCCTGCTTGGATCAAGTTCTC-----AGTTCAAGCACCAAGTGAA 869
Db 608 TGGTTGATCGTATTCAGCATTTGATTCGTTATCGGACTGTTGATGCTCTAAATTTTGA 667
Qy 870 CTCCCATATATAGTCATATATGATCTCTCCCGAGGAGGAGATATGTTTCAAAAT 929
Db 668 GCTCCTTATGATGGTTCATTGGGATCTCTCTCTTCTGAAAGTACACATTTAAGCAT 727
Qy 930 CTTCAGCAGGAGACCAAAATTCATCTCGGATTTATGATGCGACGCTTGGATGAGTAGT 989
Db 728 CTTGCGCTTCAAGGCTGCTGCTCCAGTATCTATGAAGCCCATGATGATGATGAGTGT 787
Qy 990 ACGGAGCCAGTAAATTAACACATATGCCAATTTTAGAGATGATGCTTCTTCGATCAAA 1049
Db 788 GAAAGCCAGCATTAACACATATAGGGAATTTGCAGACAAATGTTGCCACCATACGA 847
Qy 1050 AAGCTTGGCTACAAATGCTTTCAGCTCATGGCTATTCAGAGCATTCATATATGCTAGT 1109
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Qy 1110 TTTGGGTATACGTCACAAACTTTTATGAGCTAGACGCGGATTTGGAACTCTCTGATGAT 1169
Db 908 TTTGGGTATACGTCACAAACTTTTATGAGCTAGACGCGGATTTGGAACTCTCTGATGAT 967
Qy 1170 TTAAGTCTCTAATAGATAAAGCTCAGAGTTAGTCTCTTCTTCTCATGGATATGTT 1229
Db 968 CTCAAAATATCTTGTGTAGTAAGGCACACAGTTTGGGTTTGGAGTTCTGATGATGTTGTC 1027
Qy 1230 CATAGCCATGCATCAACTAATAACGTTGGATGGGCTGAATATGTTTGTATG-----GT 1280
Db 1028 CATAGCCATGCAAGTAAATATGTCACAGATGGTTTAAATGGCTATGATGTTGGACAAGC 1087
Qy 1281 ACGGATGGTCACTACTTTTCACTCTGGACACGCGGCTCATCATTTGGATGTTGGACTCTGC 1340
Db 1088 ACCAAGAGTCTATTTTTCATTCGCGGAGATAGAGTTTATCATAACTTTGGGATGTCGG 1147
Qy 1341 CTTTTCAACTATGCGAGCTGCGAGTTCTAAGGTTTCTTCTTCTTCAATGCAAGGTGGTGG 1400
Db 1148 CTGTTCAACTATGCTAACTGGAGGATTAAGGTTTCTTCTTCTTCACTGAGATATGG 1207

Db 1767 TGGGTTGATCGTATTTCCAGCATTTGATTCGTTATGCGACTGTTGATGCGCTCTAAATTTGGA 1708
Qy 870 CTCCTCATATAATGGCATATCTATCTCTCCGAGGAGGAGAGTATGTTTCAAAAT 929
Db 1707 GCTCCTATGATGGTGTTCATTTGGGATCTCTCTGCTTCTGAAAGGATACATTTAAGCAT 1648
Qy 930 CTTAGCCAAAGAGACCAAAATCACTTCGGATTTATGATGCGACGTTGGAAATGAGTAGT 989
Db 1647 CTTGGGCTTCAAAGCTGCTCTCCAGTATCTATGAAGCCCATGATGATGATGATG 1588
Qy 990 ACGGAGCCAGTAATTAACACATATGCGCAACTTTAGAGATGATGCTTCTCTCGCATCAAA 1049
Db 1587 GAAAGCCAGCAGTAGTAAGCACATATAGGGAATTTGCAGACAATGTTTCCACGCAACGA 1528
Qy 1050 AAGCTTGGCTACAATGCTGTTGAGCTCATGCTGATTTCAAGAGCATTCATATATGCTAGT 1109
Db 1527 GCAATTAACACACAGCTTCAGTTGATGGAGTTATGAGCATTCGTACTATGCTTCT 1468
Qy 1110 TTTGGGTATCAGCTCACAACTTTTATGAGCTAGCAGCCGATTTGGAACTCTCTGATGAT 1169
Db 1467 TTCGGGTACCATGTGACAAATTTCTTTGCGTTAGCAGCATCAGGCACACAGGAGAC 1408
Qy 1170 TTAAGTCTCTAATAGATAAGCTCAGAGTTAGTCTTCTGTTCTCATGATATGTTT 1229
Db 1407 CTCAAAATATCTTTGATAAGCACACAGTTTGGGTTTGGGAGTTCTGATGATGTTGTC 1348
Qy 1230 CATAGCCATGATCAACTAATACGTTGGATGGCTGAATATGTTGATG-----GT 1280
Db 1347 CATAGCCATGCAAGTAATATGTCACAGATGTTTAAATGGCTATGATTTGGCAAAAGC 1288
Qy 1281 ACGGATGCTCACTCTTCACTCTCGACACCGGGCTCATCTGATGATGCGGACTCTCGC 1340
Db 1287 ACCCAAGTCTCTATTTTCATGCGGAGATAGAGGTATCATAACTTTGGGATAGTCGG 1228
Qy 1341 CTTTTCAACTATGGAGCTGGAGGTTCTAAGGTTTCTTCTTCAATGCAAGGTGTGG 1400
Db 1227 CTGTTCAACTATGCTAACTGGGAGGTATTAAGGTTTCTTCTTCACTGAGATATTGG 1168
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Db 1167 TTGGATGAATTCATGTTGATGGCTTCCGATTTGATGGAGTTTACATCAATGCTGTATCAT 1108
Qy 1461 CATCATGATGTCAGGTAGATTTTACCGCACTACAAATGAATATCTTTGGATATGCAACT 1520
Db 1107 CACCATGATCAATGTTGGGTTTACTGGAACATACAGGATATTTTCACTTTGGACACA 1048
Qy 1521 GATGTAGATGCTGTTGTTTATGATGCTGTTGAAATGATGATTCATGCTCTCTTCCCA 1580
Db 1047 GCTGTGGATGCAATGTTTACATGATGCTTGCACCACTTAAATGCAACAACTCTTGCCA 988
Qy 1581 GAGGCTGTCAACATTTGATGATGCTTAGTGAATGCCAACAGTTTGCATTTCCGTTGAA 1640
Db 987 GAAGCACTGTTGTTGCTGAAGATGTTTTCAGGCATGCGCGTCTTTGCGGCGCAGTTGAT 928
Qy 1641 GATGTTGTTGGCTTTGATTTATCTCTCCACATGCTGTTGCTGATAAATGGGTTGAG 1700
Db 927 GAAGTGGGTTGGGTTTGATCTATCGCTGGCAATGGCTATCCCTGATAGATGATGAC 868
Qy 1701 ATTATTCAGAGAGATGA---AGATGGAAATGGGTGACATTTGATACATATGCTGACC 1757
Db 867 TACCTGAAGATAAAGATGACTCTGAGTGGTGCATGGGTGAAATAGCGCATCTTTGACT 808
Qy 1758 AACAGCGGTGGTTGGAAAGTGTCTTCTATGCTGAAGTCATGACAGGCGCTTGT 1817
Db 807 AACAGGATATPACTGAAATAATGTCATCGCATATGCTGAGAGCCATGATCAGTCTATTGTT 748
Qy 1818 GGTGCAAAAATATTGCAATTTGGCTGATGACAGGATATGATGACTTCTATGCTCTT 1877
Db 747 GCGGCAAAAATATTGCAATTTCTCTGATGACAGGAAATGATACACTGGCATGTGACAG 688
Qy 1878 GACAGACCATCTACTCTCTCATAGATCGTGGAGTAGCATTTGCAAAAATGATCAGGCTT 1937

Db 687 TTGAGGCTGCTTCCACTCACTCAAAATTTGATGAGGGATGTCACCTCAAAAGATGATTCACCTC 628
Qy 1938 ATTACCATGGGATAGCGGAGAAAGGATATTTGAATTTTATGGAAATGAATTTGGACAC 1997
Db 627 ATCAATTTGGCCCTTGGAGGTGATGGCTACTTGAATTTTATGGAAATGATTTGGTCCAC 568
Qy 1998 CCCAGTGGATTTGATTTTCCAAAGAGGTGATCTACATCTTCCAGTGGTAAATTTGTTCTCT 2057
Db 567 CCAGATGGATTTGACTTTTCCAAAGAGAA----- 541
Qy 2058 GGGAAACAATTTACATTTATGATAAATGCGGGTAGGTTTGTATCTAGGCAATTTCAAAGCAT 2117
Db 540 GGGAAACAATTTGAGGATGATGATAAATGCGAGACGACAGTGGAGCCTTTGTGGACATGATCAC 481
Qy 2118 CTGAGATATCATGAAATGCAAGAGTTTGTATCAAGCAATTTAGCATCTTGAAGAAAGCCTTAT 2177
Db 480 TTGGGTTACAAGTACATGATGCGTTTGCACCAAGGATGATGCGCTCGATGAGAGATTT 421
Qy 2178 GGTTCATGACTCTCTGAGCAACCAATACATATCACGGAAGGATGAAAGGATCGGATCANT 2237
Db 420 TCCCTTCTCTGCTCTCAAGCAGATCGTCAGCGACATGAACGATGAGGAAAGGTTATT 361
Qy 2238 GTCTTCAGAGGGGAAACCTGTTTGTATTTTGTATTTTCAATTTTCTATTTGGACTAGCAGCTATT 2297
Db 360 GTCTTTGAACGTGGAGATTTAGTTTTGTTTTCAATTTTCCATTTCCCAAGAAACTTACGAG 301
Qy 2298 GATTACCGAGTTGCTGCTTAAAGCCAGGAAAGTACAAAGATAGTCTTGGATTCAGATGAT 2357
Db 300 GGCTACAAGTTGGATTCGATTTGCTTGGGAAATACAGATGAGCCCTGGACTCTGTATGCT 241
Qy 2358 CCTTTGTTGAGGCTTTTGGCAGGCTTAGTCATGATGATGACAGGACATTTCA 2406
Db 240 CTGCTCTTCTGCGTGCATGGAAGAGTTTGGCCAGCAGCTGGATCACTTCA 192

RESULT 14

US-09-257-894-24
; Sequence 24, Application US/09257894
; Patent No. 6376749
; GENERAL INFORMATION:
; APPLICANT: Broglie, Karen E.
; APPLICANT: Klein, Theodore M.
; APPLICANT: Hubbard, Natalie L.
; APPLICANT: Lightner, Jonathan E.
; TITLE OF INVENTION: No. 6376749el Starches via Modification of
; TITLE OF INVENTION: Expression of Starch Biosynthesis
; TITLE OF INVENTION: Enzyme Genes
; NUMBER OF SEQUENCES: 25
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: E. I. du Pont de Nemours and Company
; STREET: 1007 Market Street
; CITY: Wilmington
; STATE: Delaware
; COUNTRY: USA
; ZIP: 19898
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: Microsoft Windows 95
; SOFTWARE: Version 7.0A
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/257,894
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/091,052
; FILING DATE: JUNE 10, 1998
; ATTORNEY/AGENT INFORMATION:
; NAME: Majarian, William R.
; REGISTRATION NUMBER: 41,173
; REFERENCE/DOCKET NUMBER: BB-1066-A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 302-992-4926

RESULT 15
US-08-941-445A-16
; Sequence 16, Application US/08941445A
; Patent No. 6107060
; GENERAL INFORMATION:
; APPLICANT: Keeling, Peter
; APPLICANT: Guan, Hanning
; TITLE OF INVENTION: Starch Encapsulation
; NUMBER OF SEQUENCES: 37
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
; STREET: 5370 Manhattan Circle
; CITY: Boulder
; STATE: CO
; COUNTRY: US
; ZIP: 80303
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/941,445A
; FILING DATE: 30-SEP-1997
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/026,855
; FILING DATE: 30-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Winner, Ellen P
; REGISTRATION NUMBER: 28,547
; REFERENCE/DOCKET NUMBER: 89-97
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 499-8080
; TELEFAX: (303) 499-8089
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2763 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: not relevant
; MOLECULE TYPE: mRNA
; HYPOTHETICAL: NO
; ORIGINAL SOURCE:
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: transit_peptide
; LOCATION: 2..190
; FEATURE:
; NAME/KEY: mat_peptide
; LOCATION: 191..2467
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 2..2470
US-08-941-445A-16

Query Match 24.5%; Score 633.4; DB 3; Length 2763;
Best Local Similarity 59.9%; Pred. No. 9e-196;
Matches 1179; Conservative 0; Mismatches 736; Indels 54; Gaps 5;
QY 456 ATATATGACATAGATCCAGGCTTTCGTCAACACCTAGATTACCGGTATTC 515
DB 251 ATATACGACCTGGACCCCAAGCTGAGATATTCAGAGCACTTCAGGTACCGGATGAA 310
QY 516 CAGTACAAAGACTCCGAGAGAAATTCACAGTATGAAGTGTCTCGATGCAATTTCT 575
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QY 576 CGTGCTATGAAAGTTTGGTTTCTCAGCGAGTGAACAGGAATTAATATAGAGAGTGG 635
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QY 756 GGTTCAGCACCAATTTCCCATGGTTCTCGAGTAAAGATAGCATGGATGATCTCCATCTGGC 815
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QY 816 AACAAAGATTTCTTCTGCTGGATCAAGTTCTC-----AGTTCAAGCACCAAGGTGAA 869
DB 608 TGGGTTCATCGTATTCAGCATTCGATTCGTTATGCGACTGTTGATGCTCTTAAATTTGGA 667
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DB 668 GCTCCCTATGATGGTGTTCATTTGGGATCCTCTCTGCTTCTGAAAGGTACACATTTAAGCAT 727
QY 930 CCTCAGCCAAAGAGACCAAAATCACTTCGGATTTATGAGTCGCACGTTTGAATCAGTAGT 989
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QY 1050 AAGCTTGGCTACAATGCTGTTGAGTCTGCTATTCAGAGCATTTCAAGAGCATTTATATGCTAGT 1109
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DB 908 TTTGGGTATCAGCTCACAACCTTTTATGAGCTAGCAGCCGATTTGGAATCTCTGATGAT 967
QY 1170 TTAAGTCTCTAATAGATAAAGCTCAGAGTTAGTCTTCTTGTCTCATGATGATGATGAT 1229
DB 968 CTCAATATCTTGTGATAAGGCACACAGTTTGGGTTTGGAGTTCTGATGATGATGATGAT 1027
QY 1230 CATAGCCATGCATCACTAATACGTTGGATGGGCTGAATATGTTGATG-----GT 1280
DB 1028 CATAGCCATGCATCACTAATACGTTGGATGGGCTGAATATGTTGATG-----GT 1087
QY 1281 ACGGATGCTCACTACTTCTGAGCCACCGGCTCATCATTTGGATGTTGGACCTCTCGC 1340
DB 1088 ACCAAGAGTCTTATTTTCATGCGGAGATAGAGTTATCATAACTTTGGGATGATGCG 1147
QY 1341 CTTTTCAACTATGGGAGCTGGGAGTTCTAAGGTTTCTTCTTTCAAAATGCAAGGTGGTGG 1400
DB 1148 CTGTTCAACTATGCTAACTGGGAGTTAAGGTTTCTTCTTTCTAACTTGAATATTTGG 1207
QY 1401 TTGGATGATGACAAAGTTTGGTTCAGATTTGATGGGTTGATGGGTTGATGGGTTGATGGGTT 1460
DB 1208 TTGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1267
QY 1461 CATCATGATTTGCAAGTATGATTTTACCGCACTTACCAATGAATACTTTGGATATGCAACT 1520
DB 1268 CACCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1327
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QY 1641 GATGTGCTGTGTGGTTTATTTGATGCTGTGTAATGATGATGATGATGATGATGATGATGAT 1700
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QY 1701 ATTATTTCAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1757

1508	TACCTGAAGAATAAAGATGA	CTCTGAGTGGTGCAGTGA	ATAGCGCATACTTTGACT	1567
1758	AACAGGCGGTGGTTGGAAA	AGTGTGTTCTTATGCTT	GAAAGTCATGACACAGG	1817
1568	AACAGGAGATATCTGNA	AAAATGCATCGCATAT	GCTGAGAGCCATGATC	1627
1818	GGTGACAAAACATATGCA	TTTGGCTGATGGACAAG	GATATGTATGACTTCAT	1877
1628	GGCGACAAAACATATGCA	TTTCTCTGATGGACAAG	GAATGTACATGGCAAT	1687
1878	GACAGACCATCTACTCT	CTCATAGATCGTGGAGT	AGCATGTGCACAAATG	1937
1688	TTGACGCTGCTTCACT	CAATGATTCGAGGAT	TTGCATCCAAAAGAT	1747
1938	ATTACCATGGCATTAG	CGCGAAGAAGATATTT	GAAATTTATGGAAAT	1997
1748	ATCACAATGGCCCTT	GGAGTGATGCTACTT	GAAATTTATGGAAAT	1807
1998	CCGAGTGGATATGATTT	TCCAAGAGTGATCTA	CTCTCCCAAGTGGTAA	2057
1808	CCAGAATGGATTGACT	TTTCCAAGAGAA-----	-----	1834
2058	GGACACAAATTACAGT	TATGATTAATCCGCG	TAGTTTGATCTAGGC	2117
1835	GGAAACAACATGGAG	CTATGATTAATCGAC	ACGACAGTGGAGCCT	1894
2118	CTGAGATATCATGGA	TATGCAAGAGTTTGAT	CAAGCAATTCAGCAT	2177
1895	TTGCGGTACAAGTAC	ATGATGCGTTTGAC	CAAGCGATGATCGG	1954
2178	GGTTTCATGACTTCT	GAGCAACCAATACAT	ATACGGAAGGATGAA	2237
1955	TCCTTCTCTTTCGT	CGTCAAAAGCAGAT	CGTCAGCGACATGAA	2014
2238	GTCTTCGAGGGGAAC	CTCGTTTTGTGTTT	GATTCAAATTTTCAT	2297
2015	GTCTTTGAACGTGG	AGATTTAGTTTTGT	TTTTCAATTTCCAT	2074
2298	GATTACCGAGTGTG	CTTTAAAGCCAGGAA	AGTCAAGAATGTCTT	2357
2075	GGCTACAAAGTGG	ATGCGATTTCCTG	GGAATACAGATAGC	2134
2358	CTTTTGTGTGGAG	CTTTGGCAGGCTTT	AGCTAGTCATGATG	2406
2135	CTGGTCTTCCTGG	TGACATGGAAGAGT	TGGCCACGACGCTG	2183

Search completed: July 16, 2004, 19:54:58
Job time : 197 secs